An Address
ON
THE TREATMENT OF WOUNDS.

Delivered before the Surgical Section of the International Medical Congress, in concluding the discussion on the subject, Aug. 8th, 1881,

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MR. PRESIDENT AND GENTLEMEN,—To those of you who know from personal experience what antiseptic measures can do for surgery it may well seem strange to find some who have taken part in this discussion still assigning them a secondary place in the treatment of wounds. The explanation of this fact is, I believe, to be found chiefly in the success—nay, the brilliant success—sometimes obtained without the use of any antiseptic means whatever. This has been conspicuously the case with abdominal surgery, and especially with ovariotomy. Ovariotomy, indeed, has sometimes been spoken of as a touchstone of the efficacy of the antiseptic treatment. The success which has attended antiseptic ovariotomy has been regarded as a signal proof of the truth of the antiseptic principle. Such, however, has never been my own view. Mr. Spencer Wells and Dr. Thos. Keith achieved results which astonished the world before strict antiseptic treatment was thought of: and when, several years ago, Dr. Keith expressed to me an intention of performing ovariotomy antiseptically, I strongly dissuaded him from his purpose. I knew his already brilliant success; I felt that our spray apparatus was as yet inadequate for the production of a cloud sufficiently large to cover the whole field of operation, and sufficiently fine to avoid needless irritation; and I was also aware that such operations are often both very protracted and very anxious, while in proportion to the duration and the anxiety of an operation is the chance of the neglect of some apparently trivial yet important element in the procedure. And if the antiseptic treatment were attempted in ovariotomy and failed in its immediate object, I felt that it would be not only nugatory but injurious. It seemed to me that in any case of ovariotomy performed without antiseptic measures there was a contest between effusion from the wounded surfaces and absorption of the effused serum by the uninjured peritoneum. If absorption kept pace with effusion, there was no time for putrefactive fermentation to take place in the effused liquid; but if absorption lagged behind and effusion predominated, the serum accumulated in the abdominal cavity, and, putrefying, gave rise to septicæmia. Now, supposing an antiseptic like carbolic acid to be employed in the operation, the peritoneal surfaces, as well as those of the wound, would be more or less irritated by it, and in proportion to this irritation would effusion be increased and absorbing power enfeebled, till such time as the temporary effect of the carbolic acid had subsided; and if, in spite of the antiseptic means, active septic matter had been introduced, putrefaction and septicæmia would be the natural result.

At the same time I believed that the day would come when strict antiseptic treatment would prove valuable in ovariotomy. Especially did I anticipate that it would permit early operation for small tumours instead of the patient being kept waiting in anxiety, as used to be the case, till the tumour should have attained large dimensions. And in point of fact I think, judging from the records that have come to us from various quarters, and especially from Germany, that strict antiseptic treatment has rendered very great service to ovariotomy; that it has made the surgeon more independent of healthy surroundings, and also has made less essential the excessively minute care during the operation, and the close attention after it which we have all so much admired in the practice of Dr. Keith. Thus surgeons generally have been brought, by the use of antiseptic means, much more nearly towards the high level of Wells and Keith. Even Keith, on at length adopting strict antiseptic measures with an improved spray, for awhile surpassed himself by an unbroken series of eighty successful cases. Yet, wonderful as this achievement was, it was only a difference in degree from his former experience, and assuredly no absolute proof of superiority of the new means employed. Of late I understand he has abandoned the spray for reasons which I had not the opportunity of hearing him explain when this subject was discussed at the Congress, and I am informed that he continues to have admirable results, which cannot surprise us when we remember what he had arrived at in his early period without adopting antiseptic measures.[2]

But how, it may naturally be asked, can the success of ovariotomy performed without the use of antiseptic means be reconciled with the truth of the antiseptic principle? The answer is, I believe, to be found partly in certain peculiarities of the abdominal cavity, and partly in circumstances common to wounds in general. One great peculiarity of operation wounds within the abdomen, as compared with those in ordinary situations, is that already referred to—viz., that the plasma from the cut surface is poured out into a large cavity lined with a serous membrane disposed to absorb it as fast as it is effused. Thus without drainage or any outlet whatever for discharge being provided, the serum is, under favourable circumstances, prevented from accumulating as it would in ordinary wounds similarly treated, and opportunity is not afforded for putrefaction.

Another favourable result of the disposition of the parts is that even if some accumulation of fluid does take place, the large size of the cavity, naturally adapted for variations in capacity, prevents the occurrence of tension, which is so common a cause of disturbance in ordinary wounds. More especially if a large tumour has been removed, the part affected is left in a state of the most perfect flaccidity and relaxation.

A further peculiarity in favour of abdominal wounds is due to the high vital power of the peritoneum. I recollect making a post-mortem examination in a case of strangulated hernia, where death had taken place within forty-eight hours of the operation, and finding it impossible to discover the site of the incision by inspection from within the abdomen, so completely had the peritoneal wound already cicatrised. This high degree of vital energy operates beneficially in a manner which I shall be better able to explain when I have spoken of some circumstances common to all wounds in their relations to septic agencies.

At the Cambridge meeting of the British Medical Association last year, I brought forward facts which showed that the serum of blood is not at all so favourable a soil for the growth of micro-organisms as I had previously imagined. If we take a glass of uncontaminated milk or urine, so arranged that if left untouched it will remain for any length of time free from organisms, and add to it a drop of ordinary water, we are sure to find in a few days evidence of bacteric development in the liquid. Indeed, in the case of milk, which appears to afford pabulum for almost all varieties of micro-organisms, I have shown that if a dozen glasses of the liquid in a state of purity, in vessels suitably arranged to prevent contamination from without, receive each one-hundredth of a minim of tap water, most of the glasses will develop bacteria, though of different species in the different vessels, showing how numerous and how various are the micro-organisms really present in water.[3] Even the comparatively crude liquid which we call "Pasteur's solution," a mere solution of cane-sugar, tartrate of ammonia, and earthy salts, in which many kinds of bacteria refuse to grow at all, will be pretty sure to produce such organisms in a few days if a drop of tap water is added to it. Now from these analogies, and knowing as we do to our cost that blood serum is but too liable to putrefactive fermentation, I had assumed that ordinary water contained putrefactive bacteria in a form that would develop in serum.

But when, in the course of an experiment to be again referred to, I drew blood, with antiseptic precautions, from

[1] In preparing these remarks for the press, Mr. Lister has expanded the facts and arguments adduced during the necessarily limited time at his disposal in the discussion.

[2] It is important to bear in mind that Dr. Keith always paid the most scrupulous attention to cleanliness; and among the elements of that cleanliness he included what was a very important antiseptic precaution—namely, the purification of the sponges which he used by boiling them; impure sponges being undoubtedly a very fertile source of septic contamination, while protracted boiling is a most effectual means of destroying septic ferments.

[3] See On the Lactic Fermentation, Transactions of the Pathological Society of London, 1878. The results of such an experiment differ according to the season of the year. In cold wintry weather, when bacteria might be expected to be less numerous, it may happen that but few of the inoculated glasses show any change at all.

the jugular vein of an ox into a series of purified bottles, about half an ounce into each, and, having allowed the blood to coagulate and the clot to shrink, introduced various quantities of tap water to mingle with the expressed serum in the several vessels, I found to my surprise that not only an entire minim, but two, four, and even eight minims, failed to induce putrefaction, although the bottles were kept in a warm box at the temperature of the body. I have since confirmed this experiment in the ox, and have also extended it to the blood of other animals—the donkey and the dog—with similar results. I even found that putrid blood in full activity, if largely diluted with water purified by boiling, and introduced in small quantity in proportion to the serum, failed to occasion putrefaction or the development of any organisms that I could discover by ordinary microscopic examination. Yet the same quantities of the same dilutions quickly gave rise to putrefaction in blood of the same animal altered by mixing it with an equal part of purified water, showing that they really possessed septic energy, though unable to exert it upon normal serum. Not that the blood of these animals was in its natural state incapable of putrefaction, for inoculation with a very small quantity of undiluted putrid blood soon rendered it highly offensive. But the results of these experiments seemed to point to the remarkable conclusion that, after having been widely diffused by means of water, bacteria are incapable of developing in undiluted healthy serum. In this respect serum is totally different in its behaviour from milk, in which, as I have shown elsewhere,[4] a single *Bacterium lactis*, detached from others by a similar process of diffusion by means of water, is as sure to produce its kind as are a million taken directly from souring milk.

How it is that the diffusion of bacteria renders them incapable of developing in serum I do not profess to understand. It may perhaps be that when bacteria are introduced directly from putrid blood, the products of the putrid fermentation adhering to them may induce chemically an alteration in the normal quality of the serum which, when thus impaired, may prove amenable to the nutritive energies of the micro-organisms, while conversely copious ablution with water may remove from the bacteria the associated substances which thus act as their pioneers. This view might be otherwise expressed by saying that the bacteria *per se* are unable to grow in normal serum, and can only develop in that liquid when it has been vitiated, whether by the addition of water or by the action of small quantities of the acrid products of putrefaction.

Or, again, it seems to me conceivable that the normal serum may oppose an insuperable obstacle to the nutritive attractions of an individual bacterium, but that this may be overcome by the associated action of several of the organisms in close proximity; after the analogy of the more energetic operation of a concentrated solution of a chemical reagent. In this case the diffusion by water would produce its effect by simply detaching and separating the bacteria from each other. But whatever be the explanation, the fact remains.

I have also made observations on the effects of exposure of uncontaminated blood to air in different localities, and I have found that even the introduction of considerable quantities of dust has not led to putrefactive change.

Applying this knowledge to the discussion of ovariotomy performed without antiseptic precautions, the question naturally suggests itself whether in many cases any septic organisms have really been introduced into the peritoneal cavity, either from air or from water, in a condition capable of developing in the effused serum. And thus we have suggested to us a further explanation of the success of such operations.

But the facts which have been elicited by the experiments referred to have a far wider range of application than to the special case of ovariotomy. They seem to indicate that the putrefaction so apt to occur in wounds not treated antiseptically is due rather to septic matter in a concentrated form than to the diffused condition in which it exists either in water or in air. They suggest the highly important question, Is the spray really necessary? In other words, Is there sufficient chance of the air of an operating theatre or private room containing septic matter which can prove effective in blood serum to make it needful to regard the question of contamination from the atmosphere at all? If the answer must be given in the affirmative, and the choice must lie between the spray and antiseptic irrigation during the operation at intervals varying according to the discretion of the surgeon, with syringing of the cavity of the wound after stitching, and syringing also at every dressing, then I should give my voice decidedly in favour of the spray, as being more sure of attaining its object and involving less irritation of the wound, and also (if carbolic acid be the antiseptic used) much less risk of carbolic poisoning. At the same time it must be distinctly borne in mind that the spray is, beyond all question, the least important of our antiseptic means, and that the circumstance that a surgeon does not happen to have a spray-producer at hand is no excuse whatever for his abandoning the attempt to obtain aseptic results. But if the apparatus for the spray is at my disposal, I for my part do not as yet dare to abandon it. By the careful use of our present means, the spray included, we have arrived, I think I may venture to say, at absolute security of attaining the great object in view, provided that we have the two essential conditions complied with: an unbroken skin to start with and the seat of operation sufficiently distant from any source of putrefaction to admit of adequate overlapping of the surrounding integument by the requisite dressing. I leave it to those who have done me the honour to visit my wards to judge whether I am guilty of exaggeration in making this strong statement. Such being the case I should not feel justified, except on perfectly established grounds, in omitting any part of the machinery by which results so important to our fellow-creatures have been arrived at.

Nevertheless I am aware that, concomitantly with the perfecting of the spray, there has been an improvement in other parts of our antiseptic arrangements, and I am not prepared to say that our increased uniformity of good results may not be due to the latter rather than to the former. And it may be, for aught I know, that when the International Medical Congress next meets I shall be able to speak of results of a still higher order obtained without using the spray at all. For if further investigation should confirm the conclusion to which our recent facts seem to point, and it should indeed be proved that all idea of atmospheric contamination of our wounds during operations may be thrown to the winds, then no one will say with more joy than myself "Fort mit dem Spray."[5]

The fact that normal serum is not made to putrefy by the addition of a small quantity of water came out unexpectedly in the course of an experiment designed to illustrate a view which I had long entertained as an inference from circumstances observed in surgical practice—viz., that an undisturbed blood-clot has a special power of preventing the development of septic bacteria. This property I ascribed to the white corpuscles, which are well known to retain their life long after blood has been shed from the body.[6] I supposed these living elements of the clot to produce this effect in accordance with a principle which I believe I happened to be the first to demonstrate, but which is now generally admitted—viz., that the tissues of a healthy living body have a power of counteracting the energies of bacteria in their vicinity and preventing their development.

The experiment which I related at Cambridge seemed to confirm this view completely. I have already described one part of that experiment, consisting of the introduction of small quantities of water into vessels containing uncontaminated blood after coagulation had occurred, and the clot had shrunk so as to press out the serum. In the other part of the experiment the water was introduced before the blood into the purified bottles which were to receive it, so that any organisms which the water contained were diffused in the entire mass of the blood before coagulation, and were presumably retained in the clot when it shrank and pressed out the serum. And unexpectedly great as the resisting power of the serum to the development of micro-organisms proved to be, that of the coagulum seemed markedly greater. But our knowledge of the remarkable influence of the quantity of the ferment in proportion to the serum, as indicated by the more recent experiments, makes the evidence on which I relied at the Cambridge meeting far from conclusive,[7] so that I cannot now regard

[4] Vide Path. Trans., loc. cit.

[5] This is the title of a recent paper by Professor Bruns of Tübingen, advocating the substitution of carbolic irrigation for the spray.

[6] Last autumn I observed amœboid movements in white corpuscles from the buffy coat of a donkey's blood which had been for two days in a glass vessel.

[7] If septic liquid is diffused through blood before its coagulation, the bacteria are probably almost all, if not all, entangled in the meshes of the fibrin, and retained by them when the serum is pressed out by the shrinking clot. On the other hand, if the liquid of inoculation is added after the contraction of the coagulum, the bacteria are, in the first in-

it as demonstrated for blood outside the body that the coagulum has a greater power than the serum of resisting putrefaction. But what I desire particularly to mention on the present occasion is an experiment with reference to the behaviour of the coagulum under the circumstances in which it especially interests us as surgeons—viz., within the living body. The experiment was of a character such as it would have been difficult under existing circumstances to perform in London, so I resorted to the Ecole Vétérinaire of Toulouse, where everything was most liberally placed at my disposal by my friend Professor Toussaint and others in authority at the institution.

Having provided four pieces of glass tube, each about an inch and a half in length and three-hundredths of an inch in diameter, containing two pieces of silver wire (W) twisted together, with a little piece of fine linen cloth (L) fixed between them at their central part, the whole apparatus having been purified by steeping in a strong watery solution of carbolic acid, and subsequent boiling in water and drying over a lamp, I applied to each bit of linen one-twentieth of a minim of septic liquid, which was in the case of one of the tubes undiluted putrid blood, in the second that blood diluted with ten parts of pure (boiled) water, in the third a dilution with a hundred parts of the water, and in the fourth a thousandfold dilution. I then exposed the jugular vein of a donkey in five places, with antiseptic precautions, leaving four intervening portions of the vessel intact and covered with the integument, and introduced into each undisturbed portion of vein one of the glass tubes with the septic rag in its interior, strong ligatures of string purified with carbolic solution being applied tightly as each tube was introduced, so as to form four venous compartments or capsules quite distinct from one another, and consisting of vascular tissue healthy at the outset.

After three days the animal was killed, and the venous compartments examined. In all four putrefaction had occurred within the glass tube; but the state of the coagulum outside the tube was extremely interesting. I must content myself on the present occasion with referring to the condition of the first compartment, or that which had received the undiluted putrid blood. Immediately around the glass tube the clot was so much softened by putrefaction as to be almost diffluent. But next to the greatly thickened wall of the vein, and forming an adherent lining to it, was a layer of firm coagulum, in some parts about a quarter of an inch thick, resembling to the naked eye a perfectly recent clot. Before introducing the tubes into the vein I had drawn blood from it, with antiseptic precautions, into a number of purified stoppered bottles containing each the same quantity of septic liquid as the tubes received ($\frac{1}{10}$ minim) of various degrees of dilution, from the unmixed putrid blood to a mixture with 100,000 parts of boiled water. The bottles received each about as much blood as a venous compartment contained, and they were kept at the temperature of the body. Three out of four which had received the 100,000 fold dilution, as well as two kept uninoculated as standards of comparison, remained permanently free from putrefaction,[a] but those inoculated with larger proportions of the septic material putrified, and those which received the undiluted putrid blood, were, at the time when the vein was examined, in a state of utter decomposition, presenting a very striking contrast with the apparently unchanged layer next the wall of the vein.

But unaltered as this layer appeared to the naked eye, the microscope showed it to be in reality a very different structure from a recent clot. It proved to be teeming with cells of new formation, far more numerous than the white corpuscles of the blood, and differing from them altogether in characters; being as a rule larger, and often of great size with pellucid contents, and having as their nuclei bodies more or less closely resembling pus corpuscles. On the day after the death of the animal and removal of the vein, I continued the examination of the first compartment; and I was tearing off a part of the firm coagulum from the lining membrane when I opened into a little cavity in the clot about a quarter of an inch long and one-eighth of an inch in other dimensions, containing a thick liquid of pearly white colour, the cavity having a thin grey lining separated by a layer of dark clot from the wall of the vein, except at one part. Here it communicated with a small venous branch, whose contents had been entirely converted into this white liquid for a short distance, beyond which the branch was obstructed by clot. On microscopic examination I found this white liquid composed entirely of closely packed corpuscles of new formation, like those above described as infiltrating the clot. Here, however, the new cell development had taken place at the expense of all the original constituents of the coagulum, so that the fibrin had entirely disappeared, and only a stray red corpuscle here and there was to be discovered, and no granular débris was observed. The liquid was, in fact, neither more nor less than pus, and the cavity a small abscess. The evidence of endogenous cell development was in this liquid extremely striking. Many of the corpuscles resembled those of ordinary pus, though of varying dimensions; but often bodies exactly similar to the free pus corpuscles were seen still included as nuclei within large pellucid cells. In one such cell which I sketched there were four nuclei, three of which exactly resembled the free pus corpuscles. Thus I had the opportunity of repeating observations made in the course of very similar experiments carried on as early as 1864, experiments which, I believe, helped to prepare my mind for applying to surgical practice the conclusions of Pasteur as to the nature of putrefaction. Those observations have never yet been published, as I was compelled to suspend the investigation by the pressure of clinical work in connexion with the development of the antiseptic system. They proved, however, in the clearest manner that a blood-clot within a vein is, under septic influence, liable to a genuine suppuration—that is to say, to a change which is no mere result of breaking down of fibrin and accumulation of white corpuscles of the blood, but consists of a growth of living corpuscles multiplying by endogenous cell development at the expense of the original constituents of the coagulum.

As to the source of these newly formed corpuscles, we must suppose them to have been derived either from the white corpuscles of the blood or from proliferation of elements of the tissues of the wall of the vein. If we conceive them to have originated in white corpuscles of the blood, it is nevertheless quite certain that they were not mere emigrated white corpuscles, but that they had sprung from them as a new and altered progeny. The actual appearances presented favoured the view that the new cells had been derived from the tissues. On examining stained sections[b] of the wall of the vessel and the adherent coagulum, I found that the corpuscles in the latter were similar in character to those which thronged the interstices of the tissue of the inner part of the vascular wall; and among the latter were some that conveyed the idea of transition from the normal tissue elements. And this view seems confirmed by the fact that I have never succeeded in obtaining any new growth of corpuscles in coagulum outside the body, although the blood has been subjected to very various degrees of septic agency and has been kept in conditions similar to those within the body as regards temperature and moisture, and, indeed, in every respect, so far as I can judge, except only the influence of surrounding living tissues.

There was another circumstance observed in the clot within the vein which I must not omit to mention. Even the parts next to the lining membrane, though not putrefying, had a distinct faint putrefactive odour. This is readily explained on physical principles by diffusion of the products of the putrefactive fermentation which was going on within the tube and in its vicinity. Indeed, one of the other venous compartments, on being opened, gave exit to a small amount of fetid gas, the remains of that which had been evolved from the putrefying part, and which had been only partially

stance, confined to the serum. Hence, supposing the serum and clot alike in their resistance to bacteric development, we should expect, according to our present knowledge, that different results would follow such a comparative experiment, according as the serum was large or small in amount in proportion to the clot. Thus, when the serum is relatively scanty, as is the case with the blood of the ox, which was the subject of the experiment related at Cambridge, if a very dilute septic liquid were blended with the blood before coagulation, the bacteria, few in proportion to the bulky clot, might fail to develop in it; but if a corresponding quantity of the same liquid were dropped in after the clot had contracted, the bacteria, concentrated in the smaller quantity of serum, might succeed in growing in it. Observations of such a character cannot, therefore, be regarded as affording evidence of any special resisting power on the part of the coagulum as compared with the serum, unless an estimate is made of the relative amounts of serum and clot in the particular blood which is the subject of experiment, and a judgment formed accordingly.

[a] The last observation was made nine days after the commencement of the experiment.

[b] I gladly avail myself of this opportunity of publicly thanking M. Laulanier, the Professor of Anatomy in the Ecole Vétérinaire, for his great kindness in preparing these sections for me.

taken up by the surrounding parts; but in the other compartments it had been all so disposed of. This diffusion of chemically irritating products of putrefaction beyond the limits of the actual septic process seems to me a matter of much importance; and in the case of the ass's jugular it appears to explain, what otherwise might be difficult to account for, the inflammatory thickening of the coats of the vein, and also of the surrounding tissues. For the striking contrast presented between the inflammatory changes in and around the vessel in this animal and the entire absence of such appearances which I have found both in the horse and in the calf where I have tied the carotid artery antiseptically, with silk in the one case and with catgut in the other, seems to imply that the septic matter introduced within the vein of the donkey was the cause of the distubance in question; and the mode of its operation would seem to have been that above indicated.

But to return from this apparent digression. I have to add that, although twenty-four hours had passed since the vein was taken from the animal, I saw, in the course of a prolonged investigation of the pus in the little abscess, only a single bacterium. Also I have to mention the important fact that in the examination of the previous day, when the vein had been just taken from the body immediately after death, whereas in the softened part of the clot in the vicinity of the glass tube the red corpuscles were utterly altered, and accompanied by abundant bacteria of different kinds, some in active movement, the piece of firm clot from near the wall of the vein showed the red corpuscles often exactly like those of freshly drawn blood;[10] while, if any bacteria were present, they did not declare themselves to ordinary microscopic examination.

Thus the experiment affords very striking proof of the power of an undisturbed healthy coagulum in the vicinity of living tissues to resist the development of putrefactive bacteria, even when present in a highly concentrated form; while we have, as I believe, an explanation of this power in the multitude of new living elements with which the clot was peopled.[11]

(To be concluded.)

OBSERVATIONS ON THE USE OF THE CATGUT LIGATURE.

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MR. RICHARD BARWELL'S very interesting and instructive case, published in THE LANCET of July 30th, will tend to raise doubts in the minds of surgeons as to the utility and real security of the catgut ligature when applied to an artery. I myself am perfectly satisfied with it, having used it exclusively in practice, and tested it in experiments on animals; and in the following observations I may, perhaps, be able to throw a little light on the cause of failure in some instances. Even if my conclusions be not accepted as correct, I suggest points for further experiment. The chief items in Mr. Barwell's case, to which I beg briefly to refer, are as follow:—A child, aged seven years, received an injury which caused division of the ulnar artery, and this, after suitable methods of treatment at each stage, resulted in an attack of hæmorrhage, for which the brachial was tied. The operation was successfully performed with the "thickest carbolised catgut" available. For nearly seven days hæmorrhage was entirely restrained, but then it came on suddenly and in considerable quantity from the primary accidental wound and from the operation. Mr. Barwell reopened the operation wound, and discovered the "knot of the catgut ligature lying upon the artery, but quite loose. Its noose, that part which ought to have encircled the vessel, had disappeared. Under this knot the artery, not at all constricted, was partially divided, its coats cut clean through, as with a knife, for about a third of its periphery. Out of this rift blood freely spouted, when command of the vessel above was relinquished." Mr. Barwell tied the artery above and below the wounded part with a ligature made from ox aorta, and the result was very satisfactory.

With this case compare results in the following experiment: In December 1879, in Patna, I tied the femoral artery of a young dog, of about nine months old, with the thickest catgut ligature I could procure. Everything went on well until the 13th day, when profuse secondary hæmorrhage set in. After death I examined the site of operation. Except a small hole, through which the blood had issued, the wound was nearly healed. On cutting down, I came on the knot of the ligature lying on the coats of the artery, which were roughened and in a semi-sloughy condition. The artery was quite pervious below the ligature, and on lifting up the knot, an irregular opening into the vessel was seen underneath and above it. Through this ulcer the hæmorrhage had occurred, and no trace of the noose was found. I may here remark that in many other experiments on dogs I had no case of secondary hæmorrhage, but then they were chiefly, if not altogether, performed with medium- or small-sized threads.

Now, in these two cases the chief point of similarity is that in both the *thickest carbolised catgut made* was used, and herein lies, I think, the fault and cause of the secondary hæmorrhage. After the ligature of the brachial artery in the child, hæmorrhage was restrained for nearly seven days, showing that a complete stop had been effected on the circulation; a thrombus had formed, and probably the normal hæmostatic processes for occlusion had progressed favourably. Some time antecedent (? fifth day) to the date of hæmorrhage, the noose of the ligature had dissolved and disappeared, leaving only the large knot, which, resisting the process of softening and disintegration, acted as a foreign body, and caused ulceration of the subjacent coats of the artery and secondary hæmorrhage. In a similar manner the old silk or hempen ligature, when coming away and acting as a foreign body, caused in some cases ulceration or sloughing of the coats of the vessel and secondary hæmorrhage. In 1864 I tied the femoral artery in Scarpa's triangle for traumatic (gunshot wound) aneurism in the centre of the thigh, using stout silk for the purpose. The result was successful, but before the wound had healed there was, upon two occasions, considerable secondary hæmorrhage.[1] In the case of the silk ligature the fault lies in the material, which must necessarily cause a destructive process for its elimination from the wound. In the case of the catgut, the fault is not in the ligature itself, but in the want of adaptation of the size of the cord to the vessel exposed, or to the want of antiseptic precautions in the treatment of the wound. In other words, a very thick catgut ligature to an ordinary-sized vessel will probably fail, whereas a small- or medium-sized thread will ensure a satisfactory result. To those who are in a position to carry out experiments I venture to suggest the advisability of determining whether, in many such cases, the secondary hæmorrhage is not chiefly due to the employment of catgut of too large a size. Professor Lister tells us that "for tying an arterial trunk in its continuity, catgut as thick, when dry, as ordinary purse silk will be found best. But for ordinary wounds, where, if one ligature happens to break, another can be easily applied, much finer kinds may be employed, and are convenient from their smaller bulk." To this I would add, that when an artery has been successfully tied with the finer kinds of catgut the result will be more satisfactory than if thick strands had been used.

In septic cases the influence of the tissues on carbolised catgut must be clearly borne in mind. This has been well pointed out and demonstrated by Professor Lister himself, Drs. George Batson and W. J. Fleming of Glasgow, and others. In my own cases I would use a fine or medium-sized thread, and fully carry out the antiseptic system in each. While I was civil surgeon of Patna in 1879, and of Dacca in 1880–81, in all our operations in the Temple Medical School Hospital, and in the Dacca Mitford Hospital, we used no other ligature for arteries or vessels than catgut, and

[10] The only change observed in the red corpuscles of this part of the clot was that in some cases they had an abnormal purple colour, which I presume was due to products of putrefaction diffused through the clot from the neighbouring putrefying parts.

[11] The development of cells of new formation in organising coagula within the living body, first ascertained, so far as I am aware, by myself in 1864, has been the subject of various observations of late years, especially by German pathologists, as, for example, Tillmanns. (Vide Centralblatt für Chirurgie, 1879, No. 46.) That this cell development may, under some circumstances, go on to genuine suppuration is a fact I believe not hitherto published by any pathologist, though the truth of the occasional conversion of coagula into pus has always seemed to me sufficiently apparent from the naked-eye appearances of suppurative phlebitis and the beautiful experiments of Cruveilhier.

[1] Case published in the Indian Medical Gazette.

always with satisfactory results. Taking only the past year in the latter hospital, I performed the following operations in which catgut only was used:—

Amputation of thigh, middle	1	..	Successful.
" " lower third	2	..	1 successful; 1 died of tetanus.
" knee (Carden's)	1	..	Successful.
" below knee	5	..	Successful.
" ankle-joint (Syme's)	1	..	Left hosp. before wound had healed.
" foot (Chopart's)	1	..	Died of gangrene.
" arm	1	..	Successful.
" forearm	2	..	Successful.
Removal of elephantiasis scroti	1	..	Successful. Tumour, after being cut up and drained, weighed 42 lb.
" " "	1	..	Successful. Tumour, as above, weighed 43 lb.
" " "	1	..	Died of septicæmia. Tumour weighed 20 lb.
" " "	1	..	Successful. Tumour weighed 10 lb.

(In these cases of tumours the number of ligatures used varied from ten to forty.)

In addition, many other similar operations were performed under my own eye by the teacher of surgery, in each of which catgut was also used, and in no case had we any fear as to the result.

Manchester.

TUBERCULOUS TUMOUR (?) OF LEFT OPTIC THALAMUS.

CREMASTER REFLEX ABSENT ON RIGHT SIDE, PECULIARLY ACTIVE ON THE LEFT, EXTENDING OVER AN EXTREMELY LARGE AREA, AND CAUSING ELEVATION OF BOTH TESTICLES; ATHETOID CONDITION OF RIGHT HAND; RIGHT KNEE-REFLEX VERY SLIGHT; LEFT KNEE-REFLEX GREATLY IN EXCESS.

By GEORGE ARTHUR WOODS.

THE patient is a thin, strumous-looking, light-complexioned young man, aged twenty-one years, whom I have known for the last ten or fifteen years. His mother died of phthisis shortly after his birth. He has lost no brother or sister, but several of them bear traces of a strong strumous condition. Ever since birth he has been subject to severe asthmatic attacks, so great at times that before any ordinary relief could be obtained large doses of chloroform had to be inhaled. With the exception of constant attacks of asthma he has not suffered from any other disease until within the last year a peculiar train of nervous symptoms became manifest. The first unpleasant nervous sensation he had was in September, 1879; it was characterised by pain in the right temple, and over the eye a peculiar cutting, twisting pain troubled him when he coughed; then next it went to the side of the temple, afterwards going back over the eye. He then had an intensely painful sensation in the eyeball, which he first experienced when pulling out a loose eyelash, as painful as if he might have scratched a sore place; this sensation was also experienced in the lower lid. He experienced the same sensation if he rubbed the nose on the right side. This peculiar sensation then extended down the cheek with itching, the latter ceasing at the upper jaw, below which the thrilling was less acute, that also ceasing at the lower jaw, below which there was simply numbness when touched or moved. He then had a feeling as if his right hand were "asleep" and numb, and objects felt different from what they were, for instance, by touch; he could not distinguish between a knife, a pen, or a pencil without much difficulty and feeling it all over. This numbness and feeling of "pins and needles" gradually extended to his right leg and foot, but he was of opinion that this feeling in the leg attacked his thigh last. All this took place during a period of ten days to a fortnight. This state continued until the second week in December of the same year, up to the 8th of which month he was able to write easily with his right hand; but upon the 15th of that month he was quite unable to do more than scribble. He says: "Previous to this my asthma had been better; in fact, ever since September it hardly troubled me at all, the air tubes being cleared with little or no coughing except in the morning, and even then my breathing was comparatively easy." This absence of asthma continued until the first week in January, and then it seemed as bad as ever, attacks coming on as often as three or four times a day. About the time he became unable to write his right leg had a feeling as though it were two inches longer than his left; thus when he raised the left foot from the ground, and leaned to the right side, he was under the impression that he was standing up quite straight. At this time the sensation of his leg being "asleep" left him, but the numbness increased very much all down the side, and his ribs felt as though they had a large plaster from the spine to the half of the stomach. The first week in December his head felt giddy, and things seemed to swim round; he staggered in his walk so that he felt and walked like a drunken man. If he wanted to read at this time, he could do so best with one eye at a time; whilst he attempted writing, he either kept his right or left eye shut, usually the latter, as it was easier both to close and keep it shut, though the sight was the same with each. He had a feeling as though his sock was creased and as if he were treading on horsehair. When he gazed at an object for a short time it appeared to become double until he winked with one or both eyes, but on gazing at more than one object, no multiplication took place.

Examination.—Hyperæsthesia of the right side of the face to the lowermost portion of the lower jaw; especially well marked on the right side of the nose and round the eye. Anæsthesia extended on the right side, just below the margin of the lower jawbone, to the sole of the right foot. Eyes: Pupils 6½ mm.; both contracted to light, and acted during accommodation; vision good; optic neuritis of right eye. Knee reflexes: Right knee-reflex scarcely perceptible, left greatly in excess. Ankle cloni absent in the left foot, present in the right. Cremaster reflexes quite absent on the right side, particularly active on the left; in fact gentle stimulation of the left thigh in front caused an elevation of both testicles. The area which caused this elevation of the testicles was situate on a line with the left Poupart's ligament, and for a space the breadth of one's hand just below it, and to the innermost portion of the left thigh. After a time, say after half a dozen stimulations, I failed to obtain this elevation of both testicles, but the undue activity of the left testicle continued, and extended over a much larger area; in fact, over the whole of the left thigh, and for several inches almost below the knee in the front portion of the leg. Uvula: When the patient said "Ah," there was no dimpling on the right side, and the uvula tip pointed to the left side. Athetoid condition of the right hand. Plantar-reflex was very deliberate in the right foot, very active in the left.

Remarks.—This case presents several peculiarities: 1. That the knee-reflex (according to Gowers) ought to be excessive on the same side as the ankle clonus, whereas in this case it is the very opposite; but the most peculiar symptom is that of the elevation of both testicles when the left thigh is gently stimulated. In searching medical literature I find Weir Mitchell is the only authority who mentions ever having seen such a condition. Gowers, who has seen my case likewise, adds that it is the first of its kind he ever witnessed. For some time back I have been paying considerable attention to the reflex, and may add that the motor response is transmitted to the lumbar enlargement by branches of the anterior crural, internal cutaneous, middle cutaneous, two saphenous, and anterior twig of obturator, and that the nervous arc is completed (Weir Mitchell) by means of the genital branch of the genito-crural nerve, which innervates the cremaster. 2. That it is always present and particularly active in young boys. 3. That it is sometimes wanting in old age. 4. Is apt to be lost in fat (Jastrowsky). 5. Is lessened and sometimes destroyed by wearing trusses, varicocele, hydrocele, acute orchitis, and various tumours of testicle on the side on which they occur. 6. After a certain number, say six to eight stimulations, response becomes weaker and weaker until action ceases. 7. It should always be tested in a warm room; and in cold weather, when the patient's clothes are drawn down before trying for the reflex, the testicles should be wrapped in a warm flannel or sponge.

Southport.

THE Princess Beatrice has been pleased to make a donation of £400, part of the proceeds of her Royal Highness's Birthday Book, to the funds of the Belgrave Hospital for Children, of which charity her Royal Highness is patroness.

A CASE OF

URÆMIC CONVULSIONS TREATED BY VAPOUR BATHS AND CHLORAL; RECOVERY.

BY A. B. KELLY, M.R.C.S., L.R.C.P. ED.

ON Aug. 17th, 1881, I was sent for to see Miss N——, aged thirty-seven years. She stated that she was suffering from a bilious attack. On examining her symptoms I found she had suppression of urine, with intense headache, nausea, and constant vomiting; frequent pulse; hot dry skin. The patient had not passed water for a week; her bowels were much constipated. I ordered a diuretic mixture consisting of acetate of potash, spirit of nitrous ether, chloric ether, and water, to be taken every four hours. I also ordered a vapour bath by means of a spirit-lamp placed under a cane chair, a blanket being over the patient; and I further prescribed a couple of aperient pills containing colocynth and blue pill at bedtime. On seeing the patient next day she was no better; neither the diuretic nor aperient had acted. I gave directions to administer the diuretic at shorter intervals, and to continue the baths every three hours.

On the fourth day of the illness I observed twitching in the hands and legs. The patient had now much difficulty in getting out of bed. I therefore had a regular vapour bath procured, and directed one to be given every three hours while the patient was in bed, until the skin should act well. After the first of these baths a copious diaphoresis, followed by an action of the bowels, ensued, but no water was voided.

The following day I was hastily summoned and told that the patient had convulsions lasting for various periods between a few minutes and half an hour. I met later in the day in consultation my friend Dr. Murrell, who agreed with me as to the diagnosis and an unfavourable prognosis. I nevertheless continued the baths at the same intervals, and each produced sweating. I had been enabled since the first diaphoresis to get milk and beef-tea retained; small quantities given frequently. The convulsions continued at various intervals till next day, when I was sent for to hear that they were so violent that it was with difficulty the patient could be held in bed, much less given the baths. The case appeared now to be hopeless. However, I was determined to continue the baths if the patient could be kept at all quiet. I ordered a mixture containing one drachm of syrup of chloral and five grains of iodide of potassium to one ounce of water, to be given every three hours until the patient was less violent. After the first dose of the mixture the convulsions ceased. I therefore discontinued the chloral, but continued the iodide. I gave half a drachm of compound powder of jalap, but this had no effect whatever on the bowels. The powder was repeated four times, but did not act until an enema had been administered, and then only slightly. Now for the first time water was voided, about half a pint, and this after an interval of fourteen days. The baths were given every three hours, each one acting well on the skin, the patient taking a fair quantity of beef-tea and milk. The bowels being still very confined I gave one grain of elaterium in a little sugar. This caused one good evacuation. From this time the patient passed water two or three times daily, being assisted out of bed to a night-stool, as she refused to allow a bedpan to be put under her. On testing some of the urine free from fæces the first opportunity I could, I found that it contained two-thirds albumen.

The patient now complained of great pain in the loins, over the kidneys. Hot fomentations were applied with much relief to her, and she passed a considerable quantity of urine during the next twelve hours.

The baths were continued for three weeks, being gradually reduced in frequency during the day; the iodide was continued for the same length of time. At the end of three weeks from the beginning of her illness the patient was able to be moved to a sofa. Her bowels acted daily without any aperient. During the period of convalescence meat and fish were taken on alternate days, together with such vegetables as marrow and beans. About a quart of milk was taken daily. At the end of a month the patient was able to walk about the room, and was removed into the country, where she rapidly gained strength. Fifteen-minim doses of the perchloride of iron, I should have mentioned, were substituted for the iodide at the time that the solid food was begun. I may add that I had the assistance of two very good trained nurses, who carried out thoroughly every direction given.

I attribute in a great measure the success of the case to the constant use of the baths, together with the administration of the chloral. Patient had never been hysterical nor had she been accustomed to take any alcoholic stimulant. She attributes her attack to a cold taken just before her water ceased to pass.

Mount-street, Grosvenor-square, W.

NOTES AND REMARKS ON A CASE OF

CIRRHOSIS OF THE LIVER OCCURRING IN THE TROPICS,

IN WHICH PARACENTESIS ABDOMINIS WAS PERFORMED THREE TIMES; RECOVERY.

BY J. H. COURTENAY, L.R.C.P. LOND.,
GOVERNMENT MEDICAL OFFICER, LUCEA, JAMAICA.

THE severity of the symptoms developed during the course of the following case (almost warranting a hopeless prognosis), and the remarkably favourable change consequent upon the third performance of paracentesis abdominis, justify me, I hope, in considering that a record of it may not be uninteresting.

J. J——, a sparely-built man of about forty years of age, an Englishman, who has been a resident in Jamaica for the past twenty years, consulted me for the first time on the 12th of February, 1879. After a careful examination, the particulars of which I need not enter into, I diagnosed cirrhosis of the liver complicated with ascites. The previous history, habits, &c., of my patient materially assisted me in arriving at this diagnosis. I prescribed a mixture containing the usual diaphoretics and diuretics, and gave a hydragogue cathartic three times a week, and, in addition to this, stimulants, with the exception of claret and hock, which were interdicted, the diet being carefully regulated. On March 9th a neighbouring medical man and Government medical officer met me in consultation, and concurred in my diagnosis and treatment of the case. The dropsical symptoms having increased to a marked degree, paracentesis abdominis was performed for the first time on the 30th of this month. Two gallons of pale straw-coloured fluid were removed by the operation, and the patient, although considerably exhausted after it, in a few days experienced much relief, the dropsical condition of the penis, scrotum, and legs subsiding after the removal of the fluid from the abdomen. But this remission was of short duration; sharp colicky pains over different parts of the abdomen now distressed my patient, and the dropsical symptoms, first in the abdomen, then in the scrotum, and, finally, in the thighs and legs, quickly became redeveloped. The abdominal pains always yielded to a pill containing camphor and hyoscyamus, with a small proportion of opium, and minute punctures afforded temporary relief to the œdema of legs and scrotum.

So matters went on until the 9th of May, when I deemed it advisable to repeat the tapping operation. The quantity of fluid withdrawn at this time measured one gallon, and was of a dark-red colour. Exhaustion, the same as at the first operation, followed, and the fluid returned much more rapidly into the abdominal cavity. A semi-comatose condition now became developed, there were marked bronchial symptoms present, extreme emaciation, and a dry parched condition of skin, with purpuric patches over both lower extremities. The urine passed was highly ammoniacal and small in quantity, and twice there was considerable hæmorrhage from the bowels. The crowning misery of all now appeared, a bedsore on each great trochanter. I treated each phase of the disease as it arose, and delayed tapping again as long as I thought it prudent to do so; but as it was impossible to do anything for the bedsores whilst the weight of the abdominal fluid exercised such a baneful influence on them, I performed paracentesis for the third time on June 20th, and removed about two quarts of dark turbid fluid. I confess that I now dreaded rapid collapse and death, but instead of that my patient bore the operation remarkably well, and rallied considerably the evening after

its performance. I then, as in each former instance, returned to the medicinal treatment of the case, and in a few days the kidneys and skin began to act freely, the bedsores healed, and a steady general improvement was discernible daily.

I need not enter more fully into the case than to state that this improvement was permanent. My patient is now able to walk a mile without fatigue, the dropsical symptoms have all disappeared, and he presents every appearance of returned health and spirits.

Remarks.—This case appears to me to afford a striking example of the curative influence exercised by early and frequent tapping, so forcibly and lucidly insisted upon by Dr. F. Roberts in his "Theory and Practice of Medicine," as specially applicable to cases of cirrhosis of the liver. One word on the method of performing paracentesis abdominis. In the first and second tappings, the old custom of placing the patient in a chair and exerting pressure with bandages was used; but on the third occasion the patient was lying on his back in bed, and not subjected to the influence of any pressure, although the abdomen was carefully bandaged after the operation had been completed. I have since had abundant opportunities of judging of the safety and efficiency of this method of tapping, and can unhesitatingly recommend it as a valuable improvement on the method that formerly obtained.

AXIS TRACTION FORCEPS.

By VERE G. WEBB, L.K.Q.C.P.I., L.M.

I WISH to bring under the notice of the profession a modification of Sir J. Simpson's long forceps, which I think will be found to combine the advantages of ordinary long forceps and the axis traction forceps designed by Tarnier and others. The modifications are: 1. A curve four inches below the fenestrum (point D in the accompanying diagram), which brings the shanks of the forceps parallel to the line A B C, which represents the axis of the sacral curve. 2. The handles of the forceps, which commence an inch and a half below the lock, E (which is the ordinary English lock), are bent at right angles to the shanks, and consequently cut the line A B C at right angles. 3. At the point F, the angle between the shanks and handle, both blades are perforated; and when the forceps is locked, a steel pin with screw and nut is passed through them to keep the handles together, as shown in the diagram.

The advantages I claim for this forceps are: 1. It is applicable in all cases, whether the head be at the brim, in the cavity, or at the outlet of the pelvis. 2. When the forceps is applied, the line A B C, before mentioned, represents the axis of the part of the pelvis where the fœtal head is; consequently, if traction be made *at right angles to the handles*, the power will *always* act on the head in the pelvic axis. 3. The advantage of pulling in the pelvic axis is gained without any additional rods, whether fixed or movable; consequently, the instrument is simpler, lighter, and easier to apply than Tarnier's or other forceps with those additions. 4. The cost is only slightly in excess of that of ordinary long forceps.

The instrument has been made for me by Messrs. Salt and Son (Birmingham), whose name is a sufficient guarantee of the excellence of the workmanship.

Coleshill.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

THREE CASES OF SIMPLE ATROPHY OF THE OPTIC NERVES, OCCURRING IN MEMBERS OF THE SAME FAMILY.

(Under the care of Mr. C. HIGGENS.)

THE following three cases of simple atrophy of the optic nerves were recently under treatment at Guy's Hospital. Two of the patients are boys, and the third a girl, all members of the same family. Shortly after the birth of the eldest of the three the mother manifested evident signs of syphilis.

CASE 1.—Albert S——, aged fifteen, first came under treatment Sept. 6th, 1881. The sight had, it was stated, failed suddenly three months before. The boy could count fingers in the lower part of the field of vision in both eyes. The ophthalmoscope showed pale, well-defined discs with fairly good retinal blood-supply.

CASE 2.—Agnes S——, aged thirteen, was first seen in February, 1881. At that time she could read No. 16 of Jaeger's test types at six inches, with each eye. The right eye had been gradually failing for eighteen months. On Sept. 6th, 1881, she could still find her way about, but could not read. With the ophthalmoscope the optic discs were seen to be dead white, and the retinal blood-supply below normal.

CASE 3.—Frederick S——, aged ten, was seen for the first time Sept. 6th, 1881. He had been at school till within the last month, and could see well. On returning to school after his holidays it was found he could not read. He could not make out any letters, but was able to find his way about. His optic discs were quite white.

Remarks.—None of the patients complained of headache, or, indeed, of any other symptoms beyond the loss of sight. The atrophy of the optic discs was probably due to disease of bloodvessels.

The following is the family history. The father, who is a compositor, enjoyed good health till fourteen years ago, when he had rheumatic fever. He has suffered from ulcerated legs with varicose veins. The mother has had ten children. The first, a son, is healthy in every way; the second, a daughter, is rather delicate; the third died at the age of fourteen months; the fourth child, a son, is one of the patients (Case 1). Since his birth the mother has had cutaneous eruptions and sore-throat. Between the birth of the fourth and fifth children she had four or five miscarriages. Her tonsils are now irregular, but there are no definite cicatrices in the throat or on the skin. The fifth child, a daughter, is also one of the patients (Case 2); the sixth child is a daughter who is healthy; the seventh died twenty-four hours after birth; the eighth, a son, is the third patient (Case 3); the ninth and tenth children are said to be healthy.

WORCESTER GENERAL INFIRMARY.

COMPOUND COMMINUTED FRACTURE OF TIBIA AND FIBULA; REDUCTION BY OSTEOTOMY; TETANUS; AMPUTATION; RECOVERY.

(Under the care of Mr. T. W. WALSH.)

FOR the notes of the following case we are indebted to Mr. Rowe, the house-surgeon.

Miss A——, aged twenty-two, admitted on April 26th, 1879, having sustained a compound fracture of both bones of the leg from jumping out of her carriage. The fracture being very oblique and comminuted, Mr. Walsh removed the ends of the tibia in order to reduce it, and brought the

cut ends well into apposition. The wound was dressed with carbolic oil and carbolised tow, and the limb placed on splints in a swing cage.

On April 29th there was a good deal of swelling and pain, with temperature 103°, necessitating the removal and renewal of the dressings.

On May 2nd the temperature was 98° in the morning. There was a good deal of discharge and the wound was redressed. Temperature in the evening 101·3°.

On the 3rd the temperature was 101·2°. An erysipelatous blush surrounded the wound and extended up the leg. The skin was puffy. Incisions were made releasing some pus. Poultices were applied. The temperature ranged between 99° and 100° for five days, and on May 8th the blush had quite disappeared. The wound was dressed again with carbolic oil.

On the 9th the temperature was 103°. The puffiness of the wound reappeared. Poultices were again ordered. Two days later the patient complained of sore-throat, tenderness behind the ramus of the jaw, and on the 12th she was unable to separate the teeth more than an inch. Temperature 99°. Chloral hydrate was given in ten-grain doses every four hours.

On the 13th she could not open her mouth as much as before. There was stiffness of the neck. Temperature 100°.

On the 14th the jaw was about the same. But during the night she woke several times suddenly and bit her tongue. She complained of stiffness of the upper arm and of her leg, and of continually jumping. There was no spasm of abdominal muscles. Temperature 99°.

After consultation, amputation was decided on, and as the integument below the knee was sufficiently sound, that joint was spared. Chloral hydrate was repeated.

On the 15th she had a rather restless night, every sound made her start; but next morning the stiffness of the neck and arm was decidedly less; and though the patient was unable to open her mouth quite so much as on the previous day, she said it felt less stiff and more comfortable. Temperature 103°.

On the 16th she had slept well. The stump was dressed; the skin had sloughed over the end of the bone. Patient felt generally better. Two grains of quinine were given every four hours. Evening temperature 104 3°. The stiffness of jaw was worse again, and the patient complained of pain in the left shoulder. There was slight opisthotonos for the first time. She complained of the leg jumping. Could not open her jaw more than a quarter of an inch. Ordered curare to be hypodermically injected, and to be repeated at intervals of two or three hours at the discretion of the house-surgeon. This was done four times without relief. At midnight she had a morphia injection. She slept at intervals after the morphia, and on the following morning she felt better. The stump discharged freely. Temperature 100°. Morphia injection four times during the day.

On the 18th she had had a very restless night. The nurse stated that at 4 A.M. she had a "kind of fit," consisting of spasm of all the muscles. The face became very blue. This lasted some minutes. She was very despondent and much exhausted. Temperature 102°. Nutrient enemata with chloral hydrate and fifteen drops of the sedative solution of opium were given every four hours. She slept well after the first, and next morning the temperature was 98°. The slough was separating.

On the 21st she had slept well. The slough came away. The wound was dressed again with carbolic oil. The ends of the bones were exposed.

She varied from day to day, but on the whole she improved. On the 27th a weight and pulley were applied to the skin above the stump in order to draw it, if possible, more over the end of the bone.

The stump was a long time in cicatrising, but eventually it quite healed, and the patient left the infirmary on Aug. 3rd. The diet was liberal throughout.

On examining the leg after its removal a spiculum of bone was found pressing on the posterior tibial nerve, which no doubt was the *fons et origo* of the tetanus.

On Sept. 19th, 1881, Miss A—— called to show Mr. Walsh what an excellent artificial leg had been supplied to her by Mr. Gray, for although the stump was necessarily short and the head of the fibula was drawn out by the violent tetanic spasm of the biceps, forming an ugly stump, she could bend the knee well, and walk satisfactorily.

KASHMIR HOSPITAL.

SIX CASES OF SYPHILITIC NECROSIS OF THE JAW; REMOVAL OF SEQUESTRA, IN THREE CASES BY INCISION FROM WITHOUT, AND IN THREE BY OPERATION INSIDE THE MOUTH; RECOVERY.

(Under the care of Mr. E. DOWNES.)

CASE 1.—A young man from Yarkand, who was literally dying from the pus which he had daily to swallow from necrosis of the whole bone of the lower jaw, from one condyle to the other. Nothing but removal of the entire bone seemed likely to do any good. This was done in July, 1877, by an external incision. The operation was a formidable one in which the able assistance of Drs. Williams and Ross of the Indian Medical Service was both acceptable and extremely serviceable.

The patient was placed in an arm-chair, and chloroform was given. An incision was then made from a point opposite the condyle on the left side to the angle, along the bone to the symphysis and from thence to the corresponding spot on the right side. There had been so much inflammatory action that the facial arteries were obliterated and required no ligature. The flaps were turned up, and it was then found that a good deal of reparative action had been going on. The operation was completed by removing the whole bone, temporal processes and articulations. There was no real difficulty about the operation, and, thanks to the excellent assistants, was speedily completed. Dr. Williams put in the sutures, using by preference horsehair for the purpose. The patient had to be fed on milk for about a fortnight, but during that time he never suffered much pain, and he did not have a bad symptom. The sutures held firmly, and the outside wound healed by first intention. There was some secretion of pus in the inside of the mouth as the cavity left by the jaw healed, but it was much less in quantity and less offensive than that formed before the operation.

The patient's health improved from a day or two after the operation, and he steadily gained strength till he left the hospital, which was little more than a month after the operation. At that time few people would have suspected that his jaw had been removed, had it not been he adduced the "ocular proof" in the old jaw which the patient carried away to his native land, wrapped up in a piece of newspaper.

CASES 2 and 3.—The success of the above case led Mr. Downes to attempt the removal of half of the jaw on two occasions in 1878. One case was that of a middle-aged man, a Hindoo. In this case the discharge of pus was excessive, and was poisoning him. He was first seen with Dr. Currie, the Civil Surgeon, who thought that his health was so much impaired that operation was not advisable. However, it was at length decided to give him the chance of operation, and Dr. Currie kindly assisted in the operation. The other case was of a woman, also middle-aged, and a Hindoo.

It is not necessary to describe the operation very minutely. In both cases the disease, though very extensive, was limited to one side. The operation was the same as that done in Case 1, except that the incision was limited to one side, and the bone was cut through a little to the side of the symphysis with a Hey's saw and bone forceps. In the case of the man (Case 2) the external wound healed without difficulty; in the case of the woman (Case 3) a fistula formed which gave great trouble, but eventually healed. In both these cases, one or two incisor teeth on the other side became loose, and had to be removed. In the case of the man, a piece of bone remained bare some months afterwards, and probably has loosened and come away without much trouble; but he has not been seen for more than a year.

In both these cases a great deformity resulted. The face was very much drawn to the side from which the bone was removed. Though both these lives were saved by the operation, the result was not quite satisfactory in either case, and contrasted very unfavourably with that of the three cases recorded below, in which about half the jaw was removed from the inside of the mouth.

CASES 4, 5, and 6.—All these three cases were seen in 1879 and were tolerably young men, and in each case the disease was extensive, though quite confined to one side, commencing about the first bicuspid tooth and extending back nearly to the articulation, though in all three cases the

joint was unaffected. In one case the temporal process was diseased, but not in the other two; the bone was loosened in all three cases opposite the first bicuspid tooth, but the disease was still progressing in the other direction. In one case the patient applied to have his last molar tooth extracted. It was only while this was being done the full extent of the disease was discovered. The state of affairs was explained to the patient, and with his sanction chloroform was given, and the operation completed.

The operation in all three cases was very similar. The patients were placed under chloroform, in the recumbent position, and after removal of the teeth on the diseased side the periosteum from the bone was separated as far back as possible from the line of demarcation, near the bicuspid tooth, backwards. There was a little hæmorrhage. The denuded bone was then seized with lion forceps, and in each case the bone broke at once near the angle. The end of the bone having again been seized with the lion forceps was pulled out as far as possible, and the periosteum was separated a little further. Thus, in all three cases, the whole of the diseased portion of the bone was removed, including the temporal process and articulation. Considerable force had to be used in one case in order to tear asunder the tendon of the temporal muscle. In another case the muscular fibres of the internal pterygoid were ruptured. No injury was done by this seeming violence, and there was no troublesome hæmorrhage.

The patients complained of very little pain afterwards—in fact, they were very pleased at getting rid of their diseased jaw, and the loathsome discharge attending it. For a few days there was a good deal of swelling, but there was not a very great discharge of pus, and in less than a fortnight the wound was healed and new bone had commenced to form; the healing process continued satisfactorily, and all three patients left the hospital in about three weeks with very little deformity.

Remarks by Mr. DOWNES.—Kashmir is a country whose inhabitants have all, or nearly all, become syphilised, and, as a rule, no antidote is taken to counteract the poison of the disease. The consequence is that syphilis is very often seen in the worst forms in the tertiary stage. Diseases of the bones are met with frequently, and among the bones implicated the lower jaw is not uncommonly affected. Many bad cases of necrosis of the lower jaw occur, and on several occasions I have removed pieces of dead bone with good success. I have once had to remove the whole of the lower jaw, and in five cases I have removed it on one side, and in no case did a patient die. The chief object of the above record is to compare the two methods by which the bone may be removed—viz., from the outside, as, I believe, is commonly done, or from the inside, as was advocated so strongly by the late Mr. Maunder. It will be seen that I have been forced to accept the latter as the better operation.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Pulsating Liver.—Extra-uterine Pregnancy.—Rickety Deformity of Thorax, with Spontaneous Fracture of Ribs.—Aneurism of Aorta.—Hypertrophied Toe-nail.—Aortic Stenosis.—Bronchocele.

THE ordinary meeting of the Pathological Society was held on Tuesday, Nov. 15th, the President, Dr. Wilks, F.R.S., in the chair. Several specimens of interest were exhibited. One marked feature of the meetings this session thus far has been a diminution in the number of "card" specimens.

Dr. S. WEST showed a man, aged twenty-one, a boot-finisher by trade. He had severe heart disease following rheumatic fever. In 1879 his belly and feet began to swell; in a few months he was tapped thrice for ascites. Later on he was tapped twice while in hospital, and then recovered. Two months after leaving the hospital he returned and required tapping. He then had pain at the epigastrium, and after tapping, an area of pulsation just to the right of the middle line at the epigastrium was noticed; this was about three inches in diameter. The heart and liver were both enlarged. The pulsation was general over the whole liver, but less marked than in the swollen part. The heart murmurs were not heard over the liver region; the vessels were not distended; no ascites; no anasarca. The nature of this case is an interesting problem, as the pulsation was hardly so general as in cases of pulsating liver. On the other hand, was it an aneurism of the hepatic artery or a collection of fluid in the liver, with transmitted pulsation?—Dr. MAHOMED remarked that one other alternative explanation was atrophy and great weakening of the diaphragm. The man's belly had been distended, and his diaphragm had for a long time been rendered practically useless. He seemed to breathe entirely with his chest, and during its expansion the belly receded; possibly, therefore, the heart might cause pulsation in the liver owing to the want of tension of the diaphragm.—Dr. WILKS asked Dr. Taylor if he had not published cases of heart disease with reflux of blood and true hepatic pulsation.—Dr. TAYLOR replied that he had, but was not able to say that this was such a case.—Dr. POWELL asked if the man had had marked cyanosis.—Dr. WEST said he had not.—Dr. D. POWELL said he always expected marked hepatic pulsation in all cases of extreme aortic regurgitation. He could not understand that if he had a quite flaccid diaphragm, why the dyspnœa was not more urgent.—Dr. WILKS said there were two questions raised, whether there really was such a thing as pulsating liver, and whether this was a case.—Dr. S. WEST said the pulsation in the liver was systolic. He could not accept Dr. Mahomed's suggestion as a sufficient explanation. The pulsation was more marked than it had ever been before, although the cyanosis was less.

Dr. S. WEST also showed a specimen of Tubal Pregnancy. On June 30th, fourteen days before admission to hospital, a woman complained of pain in the left side of her belly, which continued till death. On July 9th there was hæmorrhage from the vagina; on July 13th she was admitted into hospital, suffering from profound collapse, and she died the same evening. Post mortem the abdomen was found to be filled with fluid blood and large clots. A tumour, the size of an orange, was attached to the right side of the brim of the pelvis, which proved to be a right tubal pregnancy. The uterus was enlarged with a thickened mucous membrane. The right ovary was distinct from but adherent to the tumour. The placenta was attached to the pelvis and rectum, and had ruptured behind and caused death. The right Fallopian tube was impervious. The left tube was pervious, and the left ovary contained a corpus luteum. The fœtus was about three months old. The woman had previously borne two living children. The special points of interest were the enlarged uterus and deciduous membrane lining the uterus, the place of attachment of the placenta, and of its rupture, and the corpus luteum in the ovary opposite to the pregnant tube.—The PRESIDENT asked how this last fact was explained; had the ovum crossed the uterine cavity, or did it pass across the pelvic cavity?—Dr. WILTSHIRE said that other cases were on record in which an embryo had developed in a tube with a blocked outer end, in which evidently the ovum must have crossed the uterus from the opposite ovary. In St. Mary's Hospital Museum was a specimen of double tubal pregnancy; at the distal end of the left tube an obsolescent mass was found containing remains of a fœtus, and nearer the uterus a second tubal cyst which had ruptured and caused death. It is very rare for the decidual membrane in these cases, which is always developed, to be thrown off; but if it be, it greatly helps in the diagnosis. He had seen a case with symptoms like those of Dr. West's case, where the membrane had been discharged; afterwards fœtal bones were passed per rectum.

Mr. R. W. PARKER showed a case of Rickety Deformity of Thorax, with Spontaneous Fracture of Ribs, taken from a child aged twelve months, who had died in the East London Hospital for Children of bronchial catarrh and lung collapse. The deformity was twofold: (1) The ordinary depression, immediately external to the costo-chondral junction; and (2) a bending of the rib at the point of greatest convexity (the mid-point of the rib proper). In several of the ribs, this bending amounted to distinct fracture; and as there was no history of violence, the fractures were considered to be spontaneous, such as are known to occur in cases of well-marked rickets. There were, however, no appearances or symptoms pointing to such a condition during life; and he thought it possible, therefore, that the actual fracture might have taken place at the moment of

death, during the final expiratory gasp.—Dr. BARLOW said that if rickety chests are carefully examined posterior nodosities are often found near the angles of the ribs. Mr. Parker's case showed that they really commenced as fractures. He was sure, from his own experience, that these fractures do occur during life, at least, in some instances. —Mr. W. HAWARD remarked that the yielding of the chest is usually in the bone, not in the cartilage, and leads to a groove behind the nodosities at the junction of ribs and cartilages.—Dr. PAYNE doubted if the pressure of the air were greater at the time of death than during life. Evidently the pressure is greatest of all at the moment of forced inspiration, as can be easily demonstrated. But these fractures might possibly be produced after death by force. He had sometimes seen the posterior nodosities mentioned by Mr. Barlow, but had not been able to explain them.—Mr. GODLEE said as there was some stiffness in the chest now, these fractures could not be quite recent, in which case the movement between the broken ends would be quite free and unrestrained. —Dr. SEYMOUR TAYLOR had recently seen in the dissecting room a case of osteomalacia, with fracture of four ribs and clavicle, which had not united by bone, and he thought these fractures had been caused by violence or sudden movements.—Dr. SHARKEY asked if such fractures were seen in other diseases? He had seen a child who had three ribs fractured partly reunited, and five other ribs quite recently fractured; and there was also acute peritonitis without evident cause, and no external signs of violence. The question arose whether fracture of ribs can occur spontaneously in healthy children?—Dr. WILKS said in lunatics this was an old standing grievance, for so often the ribs were found fractured and no history of violence could be obtained. It really was very important to determine whether spontaneous fracture of ribs could occur.—Mr. PARKER was struck with the extremely limited area of the bone affected at the lateral bend. No signs of these fractures were observed during life. In Dr. Sharkey's case and in his own there was no sign of extravasation of blood. Virchow had shown rickety bones to be liable to spontaneous fracture. He thought it was possible that when the pressure of the atmosphere was entirely unopposed by the action of the inspiratory muscles, the ribs might yield under it.

Dr. DOUGLAS POWELL showed a specimen of Aortic Aneurism taken from a woman aged fifty-five, who had had syphilis. In January last she caught cold, and suffered from cough. Three weeks before admission to the hospital (Sept. 1st) she had severe paroxysms of dyspnœa. On admission he found a scar on the tongue from old syphilitic lesion; there were vibrating bronchial râles over the chest, and slight dulness, with impulse and bruit over the aortic cartilage; there was complete aphonia and laryngeal quality of cough. Coughing or sleep always brought on a paroxysm of severe dyspnœa. After four or five days the symptoms improved, and three weeks later there was no impulse or bruit to be heard over the right aortic cartilage; shortly afterwards her cough and dyspnœa increased, and in about ten days she sank and died. Post mortem the ascending aorta was found slightly dilated, and just below the origin of the great branches was the opening of a pouch, which projected back on to the trachea. The sac of the aneurism was thin-walled with laminated coagula on the right side only. The left recurrent nerve was healthy for half an inch, and then was intimately blended with the sac of the aneurism. The muscles of the larynx on the left side were considerably atrophied. About one-eighth of an inch from the origin of the left subclavian artery was a small aneurism the size of a filbert, completely occluded by recent laminated clot, which had probably formed during treatment. The trachea was slightly bulged inwards, and the pressure on it was no doubt much more during life; the dyspnœa was largely due to this fact. Cough increased the action of the heart and tension of the aneurism, and so caused the paroxysm of dyspnœa. The second cause of dyspnœa was paralysis of the vocal cord, but as no satisfactory view of the larynx was obtained during life, he was unable to take the correct condition of the cords during life. Dr. G. Johnson had shown a case of atrophy of the muscles of both sides of the larynx from pressure on the trunk of one vagus, which he explained as produced by irritation of the nerve-centre travelling down the opposite nerve. In animals after section of one recurrent nerve quick respiration is quite easy, but disturbance or excitement causes great distress, and so in these patients hurried and difficult breathing greatly increases the dyspnœa from the increased pressure of the inspired air pressing the cord in and obstructing the glottis.—Dr. WILKS asked if *all* the muscles or only the abductors were affected, as Dr. Semon had shown to be most usual.—Dr. POWELL said the posterior crico-arytenoid muscles were most markedly affected, but when the specimen was fresh the other muscles were evidently flattened. The muscle was slightly degenerated.—Dr. FELIX SEMON said that if all the muscles were paralysed the cord must have occupied the cadaveric position during life, which would not cause any dyspnœa. But the greater affection of the abductor muscles would quite explain the dyspnœa. Dr. Ferrier has recently stated in *Brain* that abductors and extensors are more exposed to disease than adductors and flexors, or have less power of resistance.

Dr. ISAMBARD OWEN showed a case of Hypertrophied Toe-nail, seven inches long, taken by Mr. Allingham from a woman aged eighty-four, who had not cut her nail for forty years. He also showed a case of Extreme Aortic Stenosis, caused by atheroma of the valve in a patient aged seventy, recently under Dr. Dickinson's care. Only a small probe could be passed through the fine opening left; water could scarcely trickle through. The man, aged seventy, had had shortness of breath on going upstairs for two years. He came into the hospital with dyspnœa, cyanosis, dropsy, and drowsiness. His temperature was low—96°; the veins in the neck pulsated; a systolic murmur was heard to the left of the ensiform cartilage; the pulse was weak, and absent at the wrist. All the arteries were extremely calcareous. Death took place from increasing drowsiness and weakness.—Dr. WILKS, from his own observation, thought a finger-nail grew in six months, and a great toe-nail in twelve months.—Dr. OWEN had not calculated the rate of growth, or inquired about it.—Mr. MORRIS said his own thumb-nail grows in five days under five months.—Mr. PEARCE GOULD had measured the rate of growth of all the nails on his own hands, and found it averaged 1-32nd of an inch per week.—Dr. MAHOMED said he had watched this fact in the fever hospitals in many cases; in three months the nail grows half its length.

Mr. PITTS showed a large Thyroid Gland, which had caused pressure in the trachea. A boy, aged fifteen, had had bronchocele for eight years. Dyspnœa at night came on latterly. On October 26th the breathing became very difficult, and he became insensible and deeply cyanosed; the jugular vein was opened without affording relief. Mr. Pitts then cut through the gland, and opened the trachea, and then removed the gland. The boy died thirty hours afterwards. On post-mortem examination, broncho-pneumonia was found. The bronchocele weighed five ounces; the whole gland was affected. In the last twelve months there have been three deaths in St. Thomas's Hospital from pressure of a bronchocele, one case of cystic goitre, and one of exophthalmic goitre. In all these the dyspnœa was only at night, probably from the accumulation of mucus and spasm of the glottis. In one case incision of the cyst relieved temporarily.—Dr. ISAMBARD OWEN asked if the rings of the trachea were of their normal size and strength. In a similar case in St. George's Hospital the rings of the trachea were found unusually small and weak.—Mr. PITTS had not noticed any difference in this respect.

CLINICAL SOCIETY OF LONDON.

Gastrostomy and Œsophagostomy in Cancer of the Œsophagus.—Removal of a Pebble from Right Bronchus by Tracheotomy.

THE ordinary meeting of this Society was held on the 11th inst., Professor Lister, F.R.S., President, in the chair. The evening was mainly occupied with the adjourned discussion upon the relative merits of gastrostomy and œsophagostomy is œsophageal cancer, raised by Mr. Reeves's paper read at the last meeting, and by a paper by Mr. Golding Bird on this evening.

The honorary fellows nominated at the first meeting of the session were duly elected by ballot.

Mr. GOLDING BIRD read a paper on Five Cases of Cancer of the Œsophagus, in four of which gastrostomy was performed, considered in regard to the advisability of the operation. He presented brief abstracts of these cases to-

gether with one of a case in which the operation, though commenced, had to be abandoned from the occurrence of œsophageal hæmorrhage that threatened immediate death. He pointed out that being a palliative, and not a radical operation, it could not be judged by bare statistics, for it dealt with the effect of the disease, and not the disease itself; that his cases showed that the chances of giving relief were inversely as the length of time the patient had suffered, the man who lived five months after gastrostomy being sixty-six years of age, but had only had symptoms two months. All the others had much longer histories. Gastrostomy of itself was not a fatal and hardly a risky operation, the one case of peritonitis that occurred being due to an accident, the causes of which were not likely to be often met with. But, as with most other medical or palliative operations, the patient had the better chance the earlier he was operated upon, and this was especially so in gastrostomy, where the surgeon only fed, but the patient still required to digest; yet he would not withhold gastrostomy even from cases presenting themselves late in the disease, when starvation was the only prospect, though he thought the anæsthetic added much to the existing state of depression in the patient. He would here, however, modify the usual plan, and open the stomach at the time of operating and give nourishment at once. He believed that he had lost two of his cases by not doing this, fearing vomiting, &c. He was totally opposed to œsophagostomy as a substitute. Four out of the five cases quoted had the growth in the chest, and therefore would not have benefited by œsophagostomy, while when the growth is at the cricoid level it is operating dangerously close to a growth liable to fungate and increase on irritation. Dilatation for cancerous stricture high up might be fairly tried, but when in the chest it was, in his opinion, more dangerous than gastrostomy itself.—Dr. COUPLAND gave a brief outline of a case of cancerous stricture of the œsophagus in which Mr. Morris had performed gastrostomy. The patient was a man sixty years of age, who had suffered for eight months from dysphagia, and was in an emaciated and collapsed condition. He referred the arrest of food to a spot opposite the larynx, but the larynx was quite movable, and auscultation of the œsophagus detected the passage of fluid to a level with the eighth dorsal spine. He rallied under nutrient enemata and stimulants, and about a week after admission Mr. Morris was consulted upon the advisability of gastrostomy. A bougie of small size was arrested at a distance of nine inches, and its use was followed by some ejection of blood-stained fluid. The following day Mr. Morris performed gastrostomy by a vertical incision in the linea semilunaris, opening the stomach at the same time, and uniting the edges of the wounds by quill sutures. Feeding by the wound was commenced on the third day after operation in small quantities, and owing to fluids frequently not being retained small portions of solids (egg and underdone meat) were given on the fourth day, the nutrient enemata being continued throughout. The sutures were removed on the fourth day, and it seemed as if the patient would rally for a time; but on the fifth day he became intolerant of the enemata, and rather rapidly sank. The autopsy made by Mr. Morris revealed no peritonitis. The gastric wound was firmly united to the margins of the cutaneous incision, and it was found to be within two inches of the pylorus. A mass of cancer deeply ulcerated had invaded the lower five inches of the gullet, and extended behind the pericardium, just below the left pulmonary vein, and passed below the diaphragm for a short distance close to the left lobe of the liver. The stomach contained a few particles of partially digested food, and the duodenum and jejunum contained chyme. A gland (noticed during life) above the left clavicle was infiltrated with epithelial cancer. Dr. Coupland remarked that in so extreme a case gastrostomy was only entertained in the hope of prolonging a life already near its close, depending almost solely upon the precarious sustenance derived from nutrient enemata. To be palliative in the real sense it should be done at a much earlier stage, when the patient's vitality was less exhausted, and with a view to obviate the constant and harmful irritation to which the cancerous growth is subjected whenever food is swallowed. Unfortunately, patients rarely seek relief until the disease is already advanced in ulceration, and is more or less widely extended, the earlier symptoms of obstruction being disregarded. The fact of the fistula in this case being so near the pylorus was doubtless due to the extremely contracted and empty state of the stomach, so that the pylorus lay more to the left than normal.—Dr. CAVAFY asked whether a cannula is ever tied in as in making a gastric fistula in animals. If so it would be quite impossible for any such accident as the passing of beef-tea into the peritoneum, as in one of Mr. Golding Bird's cases, to take place. — Mr. DURHAM said that gastrostomy had now been practised in some sixty to seventy cases, and he was nearly the first to do it in this country, Mr. C. Forster and Mr. S. Jones having preceded him. He had many cases of cancer of the œsophagus, which were a most despairing class of cases. Mr. Howse's suggestion of opening the abdomen first and attaching the stomach to it before opening the viscus was a good one. Statistics certainly tell against the operation, because it is done too late and under unfavourable circumstances. The same objection applies to œsophagostomy even more forcibly; the patient would object still more to a high opening in the neck than to a lower epigastric one. The dangers of gastrostomy had been greatly exaggerated. He did not believe the operation to be by itself dangerous. But œsophagostomy makes an ugly wound. Œsophagotomy for the removal of a foreign body is successful; but then it does not leave a permanent fistula in the neck. He would rather not submit himself to have a hole made deep in the tissues of the neck. There is, however, a third alternative. A woman, now under his care at Guy's Hospital (sent to him by Drs. Waters and Holman of Reigate) suffered for a considerable time from dysphagia. A large growth had been recognised at the back of the larynx, projecting from the posterior part of the upper part of the larynx; no doubt epitheliomatous; and the question was raised of removal of the larynx. She was obliged to leave the hospital for a time, and on her return the growth was too advanced for such a measure. She was, therefore, fed as well as she could be. There was no very serious interference with the voice nor dyspnœa. Later on complete dysphagia occurred, and for some two or three days she was nourished by nutrient enemata. The question then was whether he should resort to gastrostomy or œsophagostomy, or attempt the removal of the larynx and pharynx. He passed a No. 7 catheter into the gullet, and she was rendered comfortable. The catheter has been in for four months, being changed from time to time. She is fed entirely through it. The growth can be seen: a large malignant mass growing from the posterior wall of the larynx and round the pharynx. She has never had the slightest pain or inconvenience. Would she now be in a better condition if he had cut out her pharynx and larynx? Two years ago he had tried a similar expedient for an inflammatory stricture, and it answered well. Dr. Krishaber, at the recent Congress, advocated the indefinite retention of a bougie, which he said is tolerated for an indefinite time, and he quoted four cases in point. But it cannot always be borne so long; and Dr. Krishaber's cases and the present are the only ones in which a tube has been so retained. Mr. Durham would then recommend, before a resort to gastrostomy, and still more to œsophagostomy, that an attempt should be made to retain a tube through which the patient could be fed. There is still a feeling that there is considerable risk in passing tubes in cases of cancer of the œsophagus. Of course, if passed clumsily or carelessly there may be much danger, but he (Mr. Durham) has no fear at all about the matter. If the instrument be soft, and the surgeon bear in mind that his duty is not to force a passage, but to find a way, there was no risk. Patients can tolerate the presence of a tube fairly well. Dr. Krishaber suggests that it is better to be passed through the nose than the mouth, but that is more disagreeable than a small tube in the mouth. This measure ought certainly to be tried before œsophagostomy or gastrostomy, and patients are far more ready to submit to it.—Dr. DOUGLAS POWELL congratulated Mr. Durham in having adopted so simple a measure, and could not imagine anyone preferring gastrostomy so long as a tube could be passed. But there is a certain danger of injecting fluid into the pleura or lung; for not long ago he saw an instance where the growth from the œsophagus had ulcerated into the neighbouring bronchus. He felt bound to mention a case which was under the care of Mr. Bryant, and was seen by him (Dr. Powell) on her way to Eastbourne. She was a young woman about twenty-five, in thorough state of nutrition; and he was interested to find it a case of gastrostomy for traumatic stricture. Mr. Bryant had opened the stomach by an oblique slit. She fed herself with perfect ease by a syphon-tube with gruel, beef-tea, and beer. She had also

complete control over this opening. This confirmed him strongly in favour of the operation for traumatic stricture. In advanced cases, any operation was somewhat out of place to relieve pangs of starvation.—Dr. GOODHART was under the impression that annular strictures of the œsophagus are comparatively rare. Under these circumstances, as between œsophagostomy and gastrostomy, there could be no question that œsophagostomy could very seldom be a proper operation.—Mr. RIVINGTON said no surgeon should operate so long as he could pass a bougie. Mr. Reeves's case was at first under his own observation. He could not pass a bougie. The stricture was quite high up, and perfectly limited. It was a typical case in which to compare the two operations. He had not abandoned all hope of getting in a bougie when he left town. But he had come to the conclusion that in a perfectly limited stricture, as in that case, he should open the œsophagus in the neck, to endeavour to pass a bougie through the stricture, and retain it in the stomach; and looking at the intense fatality of gastrostomy, œsophagostomy should be performed when the disease is localised. But when the disease is lower down it would necessitate gastrostomy, and he agreed with Mr. Durham that when possible a bougie should be passed into the stomach, and there retained.—Mr. DAVIES-COLLEY said Mr. Golding Bird's cases seemed to show that gastrostomy was unfavourable in cancer; but by Mr. Howse's method it could be safely done for stricture of the œsophagus from other causes than cancer, in which it could not prolong life. The last three or four of Mr. Howse's patients have lived for a very long time—six or eight months. In two cases of his own, one was fatal soon after operation from gangrene of the lung; the other was one of stricture due to ulceration, in a woman about thirty. He could not get a bougie in, and she was unable to swallow liquids. He performed Mr. Howse's operation, and she was fed through the stomach for eight months. The stricture in the œsophagus was arrested, and she showed symptoms of amendment, and also at that time complained of regurgitation of food through the opening in the stomach. He should like to hear if Mr. Golding Bird had adopted strictly Howse's method, which consists of first laying open the abdominal parietes, and then putting two circles of sutures through the abdominal parietes into the stomach, the inner circle being just beyond where the opening was to be made in the stomach; attaching the walls to the skin, so that a ring about one inch wide of peritoneum is everywhere brought into contact. At the end of five days the operation is completed, by which time the stomach is adherent to the abdominal wall.—Dr. ANDREW CLARK said some months ago a little boy was admitted into his ward, having swallowed ammonia. After two or three weeks he went out tolerably well—i.e., well enough to swallow liquid food. Two months later he was unable to swallow liquid food, and Dr. Clark applied to the surgeons, who refused to have anything to do with the case. He therefore began treatment by dilatation; he was unable to pass a bougie; he then succeeded, and after nine months of patient perseverance the boy was able to eat a dinner of chop and potatoes. He seems now in a fair way of recovery, and better than if he had been operated upon. In the cases related was any or special care taken to render the food easy of digestion by peptonising it?—The PRESIDENT, remarking as to the seat of œsophageal cancer, said that if it is in the upper part it may extend lower down. But his own experience was that it is more often lower down. In these malignant cases the triumph for œsophagostomy or gastrostomy is in traumatic cases. He perfectly agreed with Dr. Clark that in these cases, if taken in time, one may succeed by perseverance in dilatation in restoring the patients. He has had several such cases. If operation is required at all in traumatic cases it would be the result of the patient's negligence. He could not help fearing that œsophagostomy was difficult. It was not easy to cut down on a flaccid œsophagus. As to the operation of gastrostomy, if the operation *per se* does not involve any great risk, the aim should be to perform it before the patient fell into too weak a state.—Mr. GOLDING BIRD, in reply, said that had he had Mr. Durham's experience and did he not dread passing a bougie in cancerous stricture, he might have avoided gastrostomy in two of the cases. But he freely confessed he was afraid to pass a bougie. He followed Mr. Howse's method, but by accident at the time of opening the stomach (in the case where extravasation occurred), the knife cut one stitch; he did not think, however, it would have done harm had there not been undue tension of the stomach, because of its adhesion to the pancreas, which probably determined the accident. But gastrostomy in itself is not a fatal operation.—Mr. REEVES, in reply, said that although œsophagostomy had not received much support he did not feel discouraged. Everyone knew that in foreign bodies pharyngotomy or œsophagotomy is easy, and post mortem he had found it very easy. The first case in which he did gastrostomy post mortem he found the gullet to be only half an inch deep. Cancerous growths do not involve any extent of the passage, through which a tube or the finger could not pass, and therefore he advocated a preliminary œsophagostomy, and but little harm would be done even if sloughing were found. He never had any difficulty in finding the stomach. If the operation were not delayed till a tube could not be passed through the stricture the tube might be used to inflate the stomach. This was done by a Danish surgeon six years ago. The oblique incision and double rows of deep sutures were used by Verneuil in 1867. At times the edge of the left lobe of the liver is come upon. It may be that the cause of the failure of gastrostomy is because it is done too late; but there must be some allowance made for the enormous mortality. If one cannot do as Mr. Durham suggests (for some patients are intolerant of a tube), then before operating on the stomach there might be a preliminary exploration of the neck. The great point is to incise the gullet by a sharp stab. He had had to do a great deal with malignant strictures of the rectum in women, and he had adopted forcible digital dilatation. His reasons were not theoretical, but based on cases which had been so treated. He thought gastrostomy a favourable operation in certain cases, but if he had a doubt he would perform a preliminary œsophagostomy.—Mr. C. LUCAS said that Verneuil's operation was not Mr. Howse's, the principle of which was to allow a few days to elapse between the first procedure and the opening of the stomach.

Mr. R. CLEMENT LUCAS gave the particulars of a case of Removal of a Pebble from the Right Bronchus by Tracheotomy. A boy, aged four, sixteen days before admission into Guy's Hospital was playing with a pebble, and accidentally swallowed it. He was immediately seized with violent paroxysms of coughing and dyspnœa, which lasted some time, then passed away. From that time he was usually seized about twice daily with these paroxysms of coughing, which were always accompanied by distressing dyspnœa. During the attacks the face became blue and the veins prominent and turgid. It was especially on waking from sleep that the coughing became violent; in the intervals between the paroxysms he suffered no distress, and was able to laugh, sing, and swallow without the slightest discomfort. When seen by Mr. Lucas on July 14th, 1881, the child was breathing with difficulty, and a physician, who examined his chest, had heard râles over the right bronchus; the cough was violent, rasping, and jerky, unaccompanied by whooping or wheezing. When the paroxysms came on the child became blue and almost suffocated. Mr. Lucas further noticed that during the effort of coughing, with his finger on the trachea the foreign body could be felt to rise and strike that tube, and then fall back again. The trachea was opened under Mr. Lucas's direction by the house-surgeon, Mr. Wood, and held open by retractors. At this time the child ceased breathing, but was restored by artificial respiration. The coughing which followed failed to dislodge the foreign body. A silk suture was next passed by means of a semicircular needle and needle-holder through the margin of the wound in the trachea on either side. The trachea could, by means of these, be drawn widely open. The child was then inverted and percussed on the back. The body did not become dislodged till the child was again placed on its back, when a fit of coughing brought it into sight. It was two or three times sucked back by the inspiration which followed after it had been driven up in the trachea, but it was eventually dislodged and prevented by forceps from re-entering. The child was subsequently placed in a steam-tent, and the wound covered with moistened lint. For several days he breathed chiefly through the wound. There were râles in the chest, and muco-purulent expectoration. The temperature rose on the third day as high as 102·8°, but gradually subsided to normal at the end of a week. The child left the hospital well on Aug. 4th, the wound being at that time soundly healed. Mr. Lucas remarked that tracheotomy was the only treatment in such cases, as it was highly improbable that the vocal cords, irritated by the presence of a foreign body in the trachea, would allow that body when of considerable size to repass the rima. Left alone the case would almost certainly, after a time, have proved fatal. He strongly

advocated the use of sutures to draw upon the tracheal wound, as being infinitely superior to any form of retractor or dilator that could be inserted. The weight of the pebble in this case caused delay in its expulsion. Had it been a cherry-stone, as the parents thought, it would probably have been more readily coughed up. Some foreign bodies, as tracheotomy tubes, cannot be expelled by coughing, owing to the air passing by or through them. He alluded to a case of this kind that he brought before the Royal Medical and Chirurgical Society in 1877, and said that a narrow curved forceps was the best instrument to use in such cases.

The PRESIDENT showed a pair of forceps constructed on the principle that when the blades open they occupy less space than when closed. The forceps was useful—e.g., in extracting a stone from the urethra. The blades are fenestrated and seize the body securely. He thought, in case of impaction in a bronchus, such forceps would be serviceable.

MEDICAL SOCIETY OF LONDON.

Congenital Absence of Eyeballs.—Atresia Ani.—Cutaneous Diseases of Children.

AT the meeting of this Society on the 14th inst., Dr. BROADBENT, President, in the chair, Mr. WORDSWORTH exhibited a baby seven weeks old, with Congenital Absence of both Eyes. The parents were healthy, and had several well-developed children; and there was no history of hereditary or other influence to account for the arrest of development. The child was well formed and healthy, the orbits of fair size, and closed by normally formed lids, with very small fissures. On separating the lids, both orbital cavities were seen to be void, and little or no trace of the eyeballs was evident. This was the fourth case of the kind Mr. Wordsworth had seen in the course of his experience; and he was not aware of any researches on the condition in an early stage of embryonic life. Dissections had been made in several instances showing that eyeballs are more or less developed, proving the condition to be one of arrested formation, and not of degeneration. It seems that the arrest occurs at an advanced stage of the eye's formation, for its structure can be made out; and the subject is dealt with by Dr. Hogquard in the *Archives d'Ophthalmologie* for June, 1881, who concludes that the arrest occurred in three cases at the commencement of the formation of the lens, and in two others during the period when the lens becomes enclosed in ophthalmic vesicle.—Dr. LEE asked if there was any account of mental disturbance during pregnancy. He pointed out that the eye of the fœtal mole is well formed, but that its subsequent shrinking is due to the growth of the base of the skull obliterating the sphenoidal fissure.—Dr. ROUTH asked if the eyeball was still growing.—Dr. DOWSE thought the arrest of development to be permanent, and had lately seen a similar condition in a young horse.—Dr. BROADBENT said it would be interesting to know whether there was any corresponding arrest of cerebral convolutions, as he had found to be the case in the brain of a deaf-mute.

Mr. FRANCIS MASON showed the parts removed from a case of Congenital Deformity of the Rectum, in which he had opened a sigmoid flexure (Littré's operation). It was a male child, three days old when seen, a conical depression replacing the anal orifice. There was no distress or undue distension of abdomen. Failing to find the gut, after an exploratory incision to the depth of two inches and a half in the ano-perineal region, Mr. Mason the next day opened the sigmoid flexure in the left groin, great care being taken to stitch together the adjacent peritoneal surfaces and to secure the gut to the skin incision. No small intestine was visible. The child did well till the eighteenth day, then his appetite failed, and small pieces of meconium escaped by the urethra, and some urinous fluid flowed through the wound in the iliac region. The child became much wasted, and died one month after the operation. The examination showed that the rectum terminated in a conical manner behind the base of the bladder, to which it was adherent, and a small pinhole communication between the two viscera. The walls of the bladder were thickened, its lining membrane inflamed, and the kidneys showed commencing suppuration. — Mr. EDMUND OWEN agreed that Littré's was the proper operation for these cases, and it was easy of performance. Lumbar colotomy was difficult and dangerous, owing to the long meso-colon met with in children. If any operation were done it should not be delayed, lest peritonitis have already set in. The longitudinal bands of muscular fibre were generally effaced by the distension of the gut. Determined exploration by dissection in front of the coccyx was apt to implicate the peritoneum, whether the exploration were undertaken in the primary search for the blind end of the bowel or for completing an anal orifice after the success of the artificial anus had been established. Prolapse of mucous membrane at the artificial anus was often a troublesome sequela.—Mr. GOULD related a case where the anal cul-de-sac was properly formed. Owing to the complete contraction of the colon from plugging of the cæcum by inspissated mucus, the presenting distended small intestine was opened instead of the sigmoid flexure. In such a case obviously Amussat's operation could have afforded no relief.—Dr. ROUTH held that much of the success of an operation depended on the sex of the child, the vagina allowing of a much freer exploration of the parts than could be obtained in the male. He suggested that a plastic operation involving muscle should be undertaken to supply an external sphincter to the new-formed anus in the perineum.—Mr. WALSHAM pointed out that the bulging met with on introducing the finger into the anal cul-de-sac was generally due to a pouch of peritoneum, and not to distended rectum, and advised a preliminary exploration by a grooved needle, to determine whether the rectum really presented. He agreed that Littré's operation was preferable to Amussat's.—Mr. MASON, in reply, said that there was a total absence of urgent symptoms in his case. He thought the internal sphincter would influence a partial control, even when the external sphincter was entirely undeveloped.

Dr. LEE's communication on the Cutaneous Diseases of Children was an analysis of the cases observed during the last ten years at the Hospital, Great Ormond-street. It is found that 10 per cent. of all cases of disease present some form of cutaneous affection; of these the most common were the well-known eruptions of the head, face, neck, and body, which amounted to 63 per cent., leaving 37 per cent. which were not peculiar to children. Dr. Lee proposed to consider these 63 per cent. under the general term of dermatitis, on account of the pathological condition being one of simple inflammation varying in degree, and thus producing the various forms known as eczema, impetigo, strophulus, and others. The relation of dermatitis to vaccination, among other causes, was explained by the fact that any local sore in a child, from whatever cause it comes, may be followed by inflammation of the skin in other parts, but chiefly in the head, face, and neck. Dr. Lee proposed for consideration the question whether the local sore might not be the original morbid material, which was absorbed and transferred to other parts much in the same way as the secondary deposits of pyæmia are produced. Many points were discussed. Among others, the diversity of locality exhibited by herpes, which was not limited to the abdomen to the same extent as in adults. The relation between syphilitic eruption of children and the stage of the disease in the parent was briefly pointed out.—Dr. SANSOM thought it an advantage to group the multiform skin eruptions of children under the one head of dermatitis; and he believed their great frequency, as compared with adults, to be due to their arising from local irritation, and especially by the transference, by scratching, of the ova of oxyuris from the anus to all parts of the body. If this view were correct, it shows the importance of treatment directed to the bowel condition, and to cleanliness of the finger nails.—Dr. JOHN BRUNTON urged the importance of regulating the diet in these intractable cases; and for some time past he had also given liquor potassæ in milk. He thought that the oxyurides thrived on undigested food, and that their presence in these cases was as a complication, not a cause, of the dermatitis.—Mr. STARTIN held that "dermatitis" was not a definite enough term—e.g., as eczema or lichen; and that most of the skin affections of children were of internal and not of local origin.—Mr. PYE believed that eczema occurred with greater frequency on other parts than the head and neck, and that the term eczema should be employed for vesicular dermatitis.—Dr. CROCKER said to use "dermatitis" to denote these various forms of eruption would be a retrograde step. If the definite cause of an eruption were not recognised its treatment would be inefficient. Although simplification were desirable, it might go too far.—Dr. S. MACKENZIE concurred in deprecating such extreme simplification as Dr. Lee had

done.—Dr. LEE replied that his classification had induced great simplicity in the treatment of the diseases under question. Most of the children from whom he had quoted were too young to use their nails, so that he could not agree with Dr. Sansom in ascribing so great influence to oxyurides in the causation of the different forms of dermatitis. He agreed with Dr. J. Brunton as to the bad influence of improper diet, and concluded by saying that it was natural for the physician to generalise as it was for the dermatologist to specialise.

MEDICAL OFFICERS OF HEALTH SOCIETY.

THE first meeting of the session was held at 1, Adam-street, Adelphi, on October 21st, 1881, when the newly elected President, Dr. J. W. TRIPE, delivered an address on the Sanitary Condition and Laws of Mediæval and Modern London, of which the following is an abstract:—

If we look carefully at the legislative measures which were in force in Mediæval London, including not only Acts of Parliament but also the civic ordinances, we should almost wonder at the prevalence of plague, sweating sickness, and other pestilences, which more than decimated the population from time to time, as well as the large fires which so frequently devastated portions of the City. The laws in existence at this time ought to have prevented both; but they were neglected. The chief reason for this neglect appears to be that the Acts and ordinances were much in advance of the habits and ideas of the population, and therefore they fell into disuse. In the time of the early Norman kings most of the houses of London were built of wood, or mud and clay mixed with straw, and covered with a thatch of straw or rushes, so that, water being scarce, when a fire broke out it rapidly extended. An extensive fire in the reign of King Stephen led to an ordinance known as Fitz-Elwynne's Assize of Buildings being issued in King Richard I.'s reign. This ordered that party walls of houses should be three feet in thickness and sixteen feet in height, and regulated the proportion to be paid by each householder; rainwater gutters were also to be provided for. The sixteen feet referred to were to admit of two storeys, each eight feet in height. The upper was called the "solar," and was the chief room in the house; it was entered by means of a ladder or outside staircase. Above this was a pent-house, overhanging the footway, the eaves of which were to be sufficiently high to allow a man on horseback to ride underneath them. At this time few small houses had glazed windows or chimneys, and were therefore cold, dark, and dirty; but early in the fourteenth century these were found in all houses. In the articles of the Wardmote, made in the reign of Edward II., it was provided that no chimneys be henceforth made except of stone, tiles, or plaster, under pain of being pulled down, and that all houses within the franchise should be covered with tiles, &c. Overcrowding evidently existed to a considerable extent. In 1580, the time of Queen Elizabeth, it was ordained that every new-built house should have four acres of land. Dr. Tripe then gave an account of the condition of dwelling-houses in the time of Chaucer, and quoted from a letter written in the time of Henry VIII., that "the floors are commonly of clay, strewed with rushes, under which lies unmolested an ancient collection of beer, grease, fragments, bones, spittle, excrement of dogs and cats, and everything that is nasty." The upper rooms were, however, boarded, and the above description refers only to those below the solar. Fitz-Elwynne's Assize regulated the distance "necessary chambers" were to occupy from a neighbour's land. The soil was taken from the pits of the necessary chambers to lay stalls in other parts of London by nightmen. The streets were narrow, and much damaged by "middle rows," like that lately removed from Holborn. Sewers are mentioned by Fitz-Stephen as existing in the time of Richard I., but these were probably channels in the middle of the streets which emptied eventually into the Thames. Fishmongers were especially ordered not to cast their slops into these channels. Nothing was to be thrown out of window from sunrise to 9 o'clock in the evening, under a penalty of 3*s.* 4*d.* "Urine boles and ordure boles" were to be brought down and cast into the channel. Each person had to pave the street and keep the channel in order in front of his house, and "rakers" were appointed to remove the filth in carts. The first Commissioners of Sewers were ordered to be appointed in the sixth year of the reign of Henry VI.; in 1531 a Commission was really appointed, sewers came into existence, and the whole drainage of London was much improved. The first water-supply to London was obtained from the Wallbrook, Langbourne, Thames, and numerous wells. In the reign of Henry I. liberty was granted to Gilbert Sanford to convey water from Tybourne by lead pipes into the City. In 1582 Peter Morris attempted to supply water by mechanical means, and in 1608 the New River Works were commenced. The prevailing diseases of Mediæval London were discussed, and it was stated that the deaths in the City probably exceeded the births in number. The number of persons who died from plague was considered, and Dr. Tripe stated that he could find no evidence of scarlet fever having existed, although the malignant throat disease of the Mediterranean corresponded with it. Reference was also made to the population and death-rates of Mediæval London. In 1665 the population was estimated at 460,000 inhabitants by Graunt, and 650,000 by Sir William Petty. These numbers were not, however, to be depended on, that of Graunt's being particularly uncertain. Turning to the sanitary condition of London in 1834 mention was made of the various steps taken by the Legislature to procure the drainage of London, and especially of those areas which were not included in the 23rd Henry VIII., cap. 5. In 1834, while the inhabitants paid sewer rate, none were allowed without payment of 17*s.* 6*d.* to make connexion with the sewer, and no one was compelled to drain his house. Since then improvements have rapidly increased, and in 1855 the Metropolis Local Management Act was passed, giving power to the Metropolitan Board of Works not only to construct and maintain main sewers, but also to control the construction of local branch sewers to be made by the Metropolitan Vestries and District Boards of Works. In addition to much other work the Thames Embankment has been built and many street improvements taken place. The Metropolitan Board has also issued by-laws for the conduct of offensive trades. The passing of the Sanitary Act, 1866, was another important step in sanitary legislation. The local authorities have not, however, availed themselves of their powers under the Metropolis Local Management Act, to make regulations for enforcing the proper construction of house drains. The law regarding the isolation of infectious diseases as it now stands is defective, it having been ruled that the words "without sufficient lodging and accommodation" refer only to the patient, and not to the other occupiers of the house. Legislative measures are also required to compel the registration of cases of infectious disease, and for providing hospital accommodation for such diseases and protecting those who undertake these duties from legal actions. The statistics of the last forty years do not show any improvement in the death-rate of infants, but the retrospect of deaths from zymotic diseases is somewhat more encouraging. This period of time, however, is too short for any marked improvement in mortality to result. In conclusion, Dr. Tripe expressed the conviction that the faulty construction of house drains causes much injury to health, but that additional legal powers for the abatement of nuisance are less necessary at present than an increased staff in the medical officer's and surveyor's departments to effectually carry out the existing laws.

PROFESSOR FERRIER AND VIVISECTION.

To the Editor of THE LANCET.

SIR,—I am desired to send to you for publication the accompanying resolution, unanimously adopted at the meeting of the Sheffield Medico-Chirurgical Society held on Nov. 10th.

"That the Medico-Chirurgical Society of Sheffield beg to offer their hearty sympathy to Professor Ferrier under the attack which has been made upon him in reference to a recent vivisection, and to express their high admiration of his scientific attainments and researches, and their warm appreciation of the great services he has rendered to medical science and suffering humanity."

I remain, Sir, yours very truly,

SIMEON SNELL,
Hon. Sec., Sheffield Medico-Chirurgical Society.

Sheffield, November 10th, 1881.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 19, 1881.

AFTER an almost undisturbed sleep of five years, the attention of the medical profession is forcibly called to the question of legislative interference with physiological research. The first occasion upon which the "Cruelty to Animals Act, 1876," has been tested by an actual summons to Court, seems a suitable time to consider the objects of the Bill, and in how far it has succeeded in fulfilling them. After some experience of the working of the Act, moreover, one should be able to form a good notion of its results, and we may speak pretty confidently as to whether it has satisfied the hopes of those by whose efforts it was introduced, or pleased physiologists who, we may say, aided its passing through the House of Commons.

As some may have forgotten the terms of the Act, it can be thus briefly recapitulated. An experimenter must have a Licence, which, however, only enables him to operate for the advancement, by a new discovery, of physiological knowledge, the animal being under anæsthetics during the entire operation, and being killed before recovering from the influence of the anæsthetic; the experiment must not be done as an illustration of lectures, nor in order to attain manual skill. A possessor of such a narrowly restricted Licence may obtain a Special Certificate entitling him to disregard any one of the following points:—(1) The non-demonstration clause, if he be a teacher; (2) if absolutely necessary, the administration of an anæsthetic; (3) the destruction of the animal, when subsequent observation is required; (4) the originality of the research, when previous experiments have led to doubtful conclusions. There can be no public demonstration under any circumstances, and an operator on a horse, ass, or mule, requires a special certificate. The Home Secretary has the power of further restricting the Licensee by such special conditions as he may think fit to affix, or he may refuse the Licence altogether without assigning any reason for so doing. The Certificates, although requiring his sanction, are not granted by the Home Secretary, but any two of a certain set of scientific persons named in the Act—who must also endorse the application for a Licence—have the power of giving special certificates for such purposes as they think advisable and necessary.

In thus appointing specially qualified scientific judges to indicate to the Home Secretary who are fit persons to receive Licences, and to determine in what cases Special Certificates allowing wider scope to the operator are to be granted, the intention of the drawers of the Bill seems obviously to have been to relieve the Home Secretary of the trouble and responsibility of investigating or deciding these points, which he naturally cannot himself so well understand as those having technical knowledge of the utility of the proposed investigation and of the status of the applicant. There is nothing to object to in the foregoing if the Act be administered in a liberal spirit.

The wish of the promoters of the Bill was, that all supposed cruelty be rendered absolutely impossible, and in this wish physiologists heartily sympathised. How completely this has been accomplished may be seen from the official reports, which set forth the number and character of all the experiments performed, and which, while showing the insignificant number of the cases which come under the Act at all, bear witness also to the total absence of anything approaching to cruelty.

Experiment on living animals certainly forms but a very small part of physiological research—a fact in which physiologists greatly rejoice; but some such experiment is generally called in to be the crucial test of the greatest truths, and usually forms a link in some part of the chain of investigation by which any great discovery is arrived at. In the course of inquiry into any physiological question, the consideration of which may last for years, at one time or another a point is sure to be arrived at when an experiment on a living animal will have to be performed to confirm a deduction or decide a question which can be settled in no other way.

How far the agitators against all experimental work are satisfied, and what kind of logic is used by them in reasoning out this important question, may be gathered by the recent legal proceedings in the police-court.

Now, what do the physiologists say? They expected to be relieved from further vexatious and insulting agitation on the part of those silly but well-meaning individuals who, in their own ignorance, could see reasons for distrusting the little unselfish band of medical men who devote themselves to this unremunerative branch of professional work. They little dreamt that one of the highest authorities in the land should almost publicly agitate against the laws which he might any day be called upon to enforce. They expected that, with a Scientific Syndicate to regulate the technical points in the working of the Act, claims of worthy and known workers would receive just credit and scope, and anyone of acknowledged repute would be allowed to carry on his arduous work without molestation. Having given their sympathies to the Bill, they surely had a right to hope that it would protect rather than impede and harass their efforts to improve the condition of their fellow-creatures. After this period of five years, during which physiologists have borne, with praiseworthy meekness and long-suffering, all the old worry of agitation, they have, however, learned the inability of a statute to protect them from interference, such as the harassing criminal prosecution which, though taken out against one who is rather a physician than a physiologist, is really intended as a blow to the whole class of scientific workers.

We hear from them that, instead of being any protection and comfort, the Act is a dire hindrance and a heavy yoke, and they heartily regret having in the remotest way furthered its passing into law. Many are deterred from even applying for a Licence by the dread of being refused. Some men of widespread and undoubted repute, though approved of by the Scientific Syndicate, are refused point blank by the Home Office. In many cases such wearying delay and official procrastination follow their application that, having limited time and many occupations, they are forced to relinquish in despair some line of experiment which might have borne fruit of inestimable value to the human race.

For who can prejudge the value of the simplest experiment? It is a question if we should now know the course of the blood, and how to ligature an artery in its continuity, had a Home Office been the judge as to the prospective value of the experiments of HARVEY and HUNTER.

This is the point in which the administration of the Act has most surprised and hurt the physiologists—namely, that the Home Office totally disregards the opinion of the Statutory Scientific Syndicate, and refuses Licences, and disallows Certificates, in obedience to some unknown agency, which was surely never contemplated by the drawers of the Act. Who, they naturally enough ask, reverses the decision of the Presidents of the Colleges of Physicians and Surgeons upon matters which are purely medical and surgical?

The part of physiological research which depends on vivisection is being gradually stamped out, and it becomes our business to inquire into the probable result of such a state of affairs.

THE adjourned discussion at the Clinical Society upon Mr. REEVES'S paper advocating œsophagostomy in cases of cancerous stricture of the œsophagus, in preference to gastrostomy, was the means of eliciting many interesting facts and opinions, which it may be useful to pass in review. Considering the importance of the subject, and the prominence it has had of late years, it is somewhat surprising to find that this is only the second occasion on which gastrostomy has been before the Clinical Society, the first being at the close of the session of 1872, when cases were contributed by Mr. T. SMITH and Mr. (now Sir W.) MAC CORMAC. The operation was then almost in nfancy. Mr. SMITH spoke of "twelve cases" being on record; but since then it has come more into favour, especially at Guy's Hospital, where Mr. COOPER FORSTER performed the first gastrostomy in this country, in 1858, on a patient of Dr. HABERSHON'S, and where important modifications have been made in its performance, notably by Mr. HOWSE. The cases read by Mr. GOLDING BIRD were most instructive, and the Society would have been well pleased to have heard Mr. HOWSE communicate his experience.

In considering the subject of surgical interference for the purpose of affording relief in œsophageal obstruction, a clear distinction should be made between the forms of disease for which it is required; and, in the second place, the seat and extent of the disease must largely influence the selection of an operation. For example, upon the first of these points it is not in reason to institute comparisons between the results of an operation performed for the relief of a simple stricture and one where this is malignant. In cases of simple stricture, which are mostly traumatic and arise from the swallowing of corrosive fluids, the subject's health is not undermined, and the conditions are far more favourable for the relief of the symptoms and the ultimate recovery of the patient. In such cases, however, the knife should only be used as a last resort, when the old-established and familiar measure—which, if more tedious, is more safe—of dilatation of the stricture has been thoroughly tried. The relation by Dr. ANDREW CLARK of an example of one of this class of cases showed what long-continued and persevering efforts at dilatation could do in saving the life of a lad whose history indicated the traumatic nature of his stricture. Dilatation, a safe and rational procedure in cases of simple stricture, is the reverse of this in cases of malignant disease; and, as the debate at the Clinical Society was intended to bear especially upon the last-named cause of obstruction, we shall limit our remarks to that form of the malady.

Three measures for the relief of patients suffering from incurable stricture of the gullet due to the growth of cancer were before the Society—viz., gastrostomy, œsophagostomy, and catheterism. We will speak of each of these in turn.

Gastrostomy has become a recognised operation in surgery, and cases have frequently been recorded in the pages of this journal. Its history has been dwelt on before, and need not to be discussed anew. By far the largest quota of cases of gastrostomy is furnished by cancer of the œsophagus, and the question may naturally be raised as to its suitability and results in that disease now that so much experience has been gained. The statistics of such cases are certainly not encouraging; the mortality that has ensued within a week of the operation being very large. It is important, however—and this is a point which is sometimes overlooked—to determine what share in this mortality is to be attributed to the operation itself, and what to the disease it is intended to palliate. Undoubtedly peritonitis has been the cause of many deaths, particularly in the earlier cases—a peritonitis directly or indirectly due to the operation, and favoured, perhaps, by the lowered vitality of the subject. But peritonitis is being fast eliminated from abdominal surgery, owing to the enforcement of special precautions; and as regards this particular operation the modifications that have been introduced, notably by Mr. HOWSE, have been successfully directed against the accidents likely to occur. Such modifications require time—the lapse of some days between the preliminary attempt to unite the stomach to the parietes and the opening of the viscus; and time in some of these cases *is* a consideration, so that the risk of peritonitis has to be run in the attempt to avert death from starvation. As it has been often pointed out, surgical intervention comes at so late a stage of the disease, and when the patient is so much reduced, that his days are literally numbered. The table furnished by Mr. GOLDING BIRD illustrated this, for it pointed to the fact that the duration of life after gastrostomy was inversely proportional to the duration of the dysphagia—or in other words, to the advance made by the disease to more or less complete closure of the gullet. In the presence of such cases the physician may well hesitate to urge and the surgeon to act, knowing that the time for relief is well-nigh passed; but one cannot reasonably deny them the right to counsel or perform the operation. There is at least a *chance* of prolonging a life, of restoring for a short time some vitality to the exhausted frame, and it is wrong to withhold any measure that offers a probability of such relief, however remote. True, it subjects the patient to the additional risk of peritonitis, but, as just said, modern surgery regards peritonitis almost as a reproach upon its efficiency, and it is a risk which must not be allowed to turn the scale against the justifiability of operations of this class. Had the dread of peritonitis been suffered to deter surgeons, ovariotomy would never have been established, and abdominal section never have been entertained. In many points, indeed, gastrostomy in desperate cases stands on the

same footing as abdominal section in intestinal obstruction. In each case the surgeon does his work in the hope of prolonging a life, in the latter case perhaps of saving it; and if abdominal section has any greater justification than gastrostomy, it is solely because the issue at stake is greater.

There is another direction in which gastrostomy in cancer may be advocated—viz., with the view not only of feeding the patient and saving him from inevitable starvation, but of removing the malignant disease from the conditions that stimulate its growth, promote its extension, and largely determine its disintegration. We mean to divert the passage of food from the natural course, to prevent it accumulating above the growth, or irritating it by its constantly repeated passage over it. The pathological fact of the increased growth of a neoplasm, or its inflammation and ulceration, from the presence of irritating foreign bodies, is well known to, and acted on by, the surgeons of the present day. Colotomy in cancer of the rectum is not deferred until the obstruction is complete, but is and often has been done, with marked benefit, long before the cancer has attained a size sufficient to block the passage. The result of such relatively early interference is most encouraging, for, withdrawn from the continued mechanical irritation caused by the passage of fæces, the cancer proceeds to grow at a much slower pace than before, and even to undergo, in part, retrogressive changes. Is it too much to hope that some day the same may be effected for cancer of the œsophagus? If it could be done, the disease would, we are certain (on pathological inferences), proceed with less virulence, and we should probably hear less of deep ulceration extending into neighbouring regions from the gullet—extensions which are in many cases the immediate cause of death. In order, however, for this to be the case, it is essential that the relief should be given early, and statistics show here also that these are just the cases where life is most prolonged.

More might be said concerning gastrostomy, but it is time to turn to the substitutes that are suggested for it. What has been pleaded above in favour of gastrostomy applies with equal force to them. Mr. REEVES, however, has pointed out that, as an operation, œsophagostomy is far more advantageous than gastrostomy. No one can deny this: the two procedures are barely comparable in point of simplicity and freedom from risk, and were the disease itself to be ignored, the operation in the neck would be preferred to that in the abdomen. To open the œsophagus, when that is the seat of disease, is, however, another matter, and Mr. REEVES must have felt that he was risking a great deal when he advised it not only in cases where the artificial opening would be made below the obstruction, but as a preliminary or exploratory measure in all other cases of œsophageal cancer. And unless we include cases of cancer at the root of the tongue and in the pharynx, among the obstructing conditions to be relieved, we should say that cancer was more frequent in the middle and lower thirds of the œsophagus than in the upper. Nor must Mr. LISTER'S remark be lost sight of—viz., that although exploration will inform us of the upward limits of the growth, we have no clue to the degree of its downward extension. Mr. REEVES did not, however, deem this of much importance; in fully one-half the cases, he alleges, the wound would be found to be below the seat of disease, and as for the rest, the operation might be abandoned for a gastrostomy, or a tube passed through the cancerous mass that is lighted upon. Such a practice was sufficiently condemned by the speakers to require no further deprecation, and unless the surgeon is prepared to excise the diseased mass, it would be far better not to cut down upon it, and increase the local injuries by such manipulations. Our conclusion would be, then, in favour of œsophagostomy whenever the stricture can reasonably be expected to be well above the level of the wound, but in favour of gastrostomy in other cases.

Mr. DURHAM, however, suggested a third alternative, which, if practicable, affords the simplest means of relief of any that could well be devised. The attention that Mr. DURHAM has paid to this subject certainly claims respect for his opinions, and if he can convince surgeons that the passage of a flexible tube is as safe in the case of an ulcerating cancer low down in the gullet as it has been in the case he related of disease at the upper extremity of the pharynx, then all will admit that a great step has been taken. Certainly the conditions are far more favourable in the latter than in the former case, for it did not require to have the catheter passed right into the stomach, but only through the stricture at the upper end of the gullet; and when we regard the great tendency to ulceration and extension of the disease, the dilatation of the tube above it, and the difficulty or impossibility of passing a bougie through the stricture (as much from the presence of the ragged and irregular excavation as from the existence of a complete obstruction), the adoption of catheterism of the œsophagus in cases of deep-seated cancer seems likely to baffle the surgeon's skill. Mr. DURHAM, too, believes that it is necessary to change the instrument repeatedly, and each time this were done there would be a recurrence of the difficulties and dangers. Still, if this delicate procedure could be effected safely, the necessity for the major measures would be removed, whilst the palliative results would be equally secured.

It will be seen, then, that each of these devices for carrying nutriment to the stomach in a patient suffering from cancer of the œsophagus has its peculiar merits, and that the selection of each method is governed by the nature, situation, and extent of the disease. Catheterism, as being the simplest, should be practised first, but with great caution and patience. It is more likely to succeed in cancers at the upper end of the gullet than in those lower down. If catheterism fail, and there is reasonable ground for the belief that the cancer is at the upper end, then œsophagostomy affords a rational measure of relief. But if the cancer be below the middle of the tube gastrostomy is indicated. Whichever measure the surgeon is forced to adopt, he will bear in mind the importance of the rule of operation in malignant disease—viz., to intervene as early as possible, and not to wait until death is imminent from starvation or from the local destruction wrought by the growth.

THE question of the nature and even the existence of the condition known as Muscular Tone is a physiological problem which has given rise to much discussion, and is still open to further light. Its interest and import-

ance have induced M. MENDELSSOHN, of St. Petersburg, to undertake a fresh series of investigations into the subject in the laboratory of M. MAREY at Paris. The method which he has pursued is one which had been indicated to him by M. MAREY, and presents some differences from that hitherto adopted. Instead of loading the muscle with a weight, a definite tension has been communicated to it in another way, so as to avoid the source of error introduced by the inertia of the weight. The method is as follows. A frog was fixed upon a planchette as in the ordinary experiments of myography. The tendon of the gastrocnemius muscle was fastened by an inelastic thread to the extremity of a light horizontal lever, which recorded its movements. The tension of the muscle was obtained in the following manner. The same thread which connected the muscle to the recording lever was continued to the lever of an air-tambour in such a way that the distension of the tambour, which moved the lever, also extended the muscle. By connecting a water-manometer with the air-tambour the variations in pressure of the contained air and the value of the traction on the muscle could readily be ascertained. Before commencing the experiment, the muscle was made to contract by an induction shock of moderate intensity, in order to learn whether the muscle, after its contraction, returned exactly to its former length. The sciatic nerve was then carefully divided at the upper part of the leg, and the section caused a brief tonic contraction in the muscle, and after this the muscle relaxed and presented a slight elongation, which persisted for ten or fifteen minutes after the division of the nerve. The question arose, Was this elongation the result of the separation of the nerve from the centre, or was it the consequence of the slight tonic contraction produced by the section? To determine this the undivided nerve of a muscle similarly arranged was stimulated by a single induction shock, and the contraction thus excited was often followed by an apparently similar elongation. But on closer examination of the phenomenon, it was found that the elongation consecutive to stimulation of the nerve presented important differences from that which followed its section. The preceding tonic contraction was not invariable; the relaxation was far slighter and of much briefer duration; and the muscle, after some oscillation, returned exactly to its primitive length—a phenomenon never observed after the section of the nerve. Hence the permanent elongation of the muscle consecutive to its separation from the centre can only be ascribed to the loss of a property which existed before the section, which constitutes the muscular tone. MENDELSSOHN corroborates, however, the observation of TSCHIRJEW, that this elongation after section is only to be observed when a certain tension has been placed on the muscle; it is not to be recognised if the muscle has been too much extended, or if it has not been extended at all. It may perhaps be admitted that excessive extension abolishes the tone, or that in a state of complete relaxation the elongation cannot be recognised by means of the methods necessary to register it. Thus the great difficulty of the investigation remains—the uncertainty of the existence of the tone apart from the tension by which alone its presence can be demonstrated. MENDELSSOHN doubts whether we are justified in denying its existence, which we cannot prove, in the state of relaxation. He has obtained evidence of its existence in a muscle very feebly charged (2 to 4 grammes). Hence he differs from TSCHIRJEW, who thinks it unjustifiable to assume more than can be demonstrated, and regards the muscular tone as permanent, and that the muscular tension merely demonstrates its presence by increasing the energy of the phenomenon and aiding its recognition by the graphic method. He found that section of the spinal cord, the nerve being intact, had the same effect as section of the nerve, and also that the same phenomena were produced by curara.

The question remains, however, whether the nervous influence on which muscular tone depends is a central influence or a reflex effect, as BROWDGEEST, CYON, and TSCHIRJEW maintain. In order to determine this point MENDELSSOHN divided the posterior nerve-roots, and found that a reflex contraction of the gastrocnemius always resulted, followed by elongation. This seems conclusive evidence that the division of the centripetal path to the cord produced the same effect as division of the centrifugal path, and from this MENDELSSOHN accepts the view that the muscular tone is a reflex action of which the point of departure is the excitation of the aponeurotic nerves, produced by the tension of the muscle in its normal condition.

Another series of researches on the elasticity of the muscles has led to the conclusion that the division of the motor nerve lessens considerably the elasticity of the muscle, and augments the extensibility, and this effect of the section of the nerve does not disappear, as WUNDT asserted, but remains permanent. MENDELSSOHN is inclined to regard muscular tone as merely a special form of the elasticity of the muscle depending on a nervous influence. He has ascertained that several of the agents which influence the elasticity of the muscle exert also their action on the state of tone, such as curara, tetanus, fatigue, anæmia, warmth, &c. The property of elasticity, however, is a purely physical one, and elasticity can only be influenced through the nervous system in so far as it depends on contractility.

ALTHOUGH the inquiry into the charges of neglect, mismanagement, and cruelty against the officials of St. Paul's Industrial Schools has for the present been allowed to drop by the decision of the committee of inquiry not to proceed further in the matter as far as they were concerned, "provided that adequate securities were given that the present master should be dismissed, that there should be a complete change in the staff, and that an efficient managing body should be appointed to supervise the working arrangements for the future," still enough, and more than enough, was elicited to arouse and alarm the public conscience. Indeed, the evidence given by the five witnesses examined was sensational enough to make even DICKENS' description of Dotheboys Hall read tame after it. The question naturally arises, Who is responsible for the proper conduct of these schools? and we are informed that the managers are volunteers, that the officers of the school are appointed by these managers, and that the Home Office alone has the right as well as the duty thoroughly to inspect all their departments. It is evident in this case that the work of inspection must have been most perfunctorily performed, and the public have a right to receive an assurance that the negligence of the person whose duty it was to make an

efficient inspection shall not passed unnoticed, and that steps will be taken in the future to ensure that both the inspections and the reports of these industrial schools shall be thorough and trustworthy. We have no doubt that the pressure of public opinion will impress on the authorities of the Home Office the necessity of doing their duty in this matter now that their attention has been called to it; though whether the steps the Home Secretary proposes to take, as announced in his letter of the 17th inst., may be considered adequate may be a matter for doubt. But if we have a possible guarantee for the future that these schools will be properly managed and inspected, there still remains a class of schools whose inmates have no protection whatever against the ignorance, tyranny, and rapacity of the proprietors. We allude to the numerous cheap schools which, to judge by the advertisements in the daily papers, seem to be springing up in considerable numbers in the neighbourhood of our large towns. We do not say that it is impossible to manage these schools properly at the low rates charged, but we do say that the limit is so small that the temptation towards pinching and unfair economy must be very great, and in the hands of unscrupulous persons abuses may readily occur. It may be argued that the parents are the natural inspectors of the schools which they select for their children; but it must be remembered that in schools of this class many of the children are orphans, and are kept there at the expense of relations, who may not be either cruel or hardhearted, but who are careless of complaints, and have not the same keen eyesight that the parents would have. Nor should the fact be lost sight of that many of the inmates of these schools are worse off than orphans, whom it is convenient to place there and to forget. There have been occurrences of late which show how imperatively some public supervision is required over schools of this class.

Annotations.

"Ne quid nimis."

THE VIVISECTION PROSECUTION.

THE evidence presented by the prosecution in the case of Regina *v.* Ferrier was listened to with great patience by Sir J. Ingham, who at its close dismissed the summons. The evidence clearly demonstrated that Dr. Yeo, who had conducted the experiments in question, had observed every condition of the Act, and had worked under all the restrictions contained therein. The prosecution was unable to produce a tittle of evidence to incriminate Dr. Ferrier, and the case stated by them was nothing less than absurd. According to Mr. Waddy's contention, not only the principal in any vivisectional experiment, but every assistant, must hold a licence from the Home Secretary. The servant who fed these monkeys was obviously as much a party to the so-called continuance of the experiment as Dr. Ferrier, who merely watched the condition of the animals from time to time. One fact which this case has brought prominently forward is the scrupulous care and scientific skill with which vivisectional experiments are conducted. The original wounds in the case in question were treated by the antiseptic method, and the pain of healing reduced to a minimum. The animals were submitted to observation by several skilled persons, and then every precaution was taken that the nervous system should be examined by independent microscopists to ascertain with the utmost precision the original lesion and any subsequent changes.

"FEVER" IN BRIGHTON.

THE Registrar-General has in several past weeks called attention to the fact that among the twenty large English towns the "highest death-rate from 'fever' has occurred in Brighton." Bearing in mind that this is the middle of the Brighton season, it is well that the precise import of this statement should not be misunderstood. The Registrar-General's weekly returns are compiled from returns furnished by the local registrars, in which accurate and precise information of the causes of death is not attempted, although the information as to the fatality of the principal zymotic diseases is in the main trustworthy. The heading "fever" in these returns includes typhus, enteric, and simple or undefined forms of fever; but as typhus is now rarely met with in England, except in London and Liverpool, the deaths reported under this heading in the Registrar-General's weekly returns may, for all practical purposes, be taken to represent the fatal cases of enteric or typhoid fever. No death from "fever" was reported in Brighton during the twelve weeks ending October 8th, whereas 22 deaths have since been registered during the five weeks ending the 12th instant. It may fairly be assumed that most of these 22 "fever" deaths were the result of enteric or typhoid fever; and that they represent a distinct and well-defined outbreak of the disease, occurring as they have done after a period of twelve weeks, during which no fatal case was recorded, it is impossible to doubt. These 22 deaths in the five weeks were equal to an annual rate of 2·13 per 1000 of the estimated population of the borough; and as a standard of comparison it may be stated that during the same period the annual death-rate from "fever" averaged 0·58 per 1000 in the aggregate population of the twenty towns, and did not exceed 0·72 in London, where the fatality of enteric and typhus fevers very considerably exceeded the average rate in recent corresponding periods. The fatality of "fever" in Brighton is usually exceptionally small; the average annual death-rate from this cause during the ten years 1871–80 did not exceed 0·24 per 1000, and in the last half of that period was so low as 0·16, and considerably less than half the average rate from the same cause in the twenty towns. Indeed the 22 fatal cases registered in the past five weeks are equal to the number recorded in the whole of any one of the last five years. It is somewhat remarkable that simultaneously with this recent outbreak of "fever," scarlet fever should also have assumed fatal prevalence in Brighton; 29 deaths from this disease have been registered since the beginning of October, against but 18 in the first nine months of the year. The last two weekly returns also show the fatal prevalence of whooping-cough.

PERITONEAL SURGERY.

THE New York *Medical Record* of Oct. 22nd gives an interesting report of a discussion on the recent progress of peritoneal surgery in the New York Academy of Medicine. The discussion was opened with a paper by Dr. Marion Sims. Dr. Sims reviewed the progress of peritoneal surgery, and specially directed his mind to this question: "Does it lead to a better treatment of gunshot and other wounds of the abdominal cavity?" Dr. Sims claimed for ovariotomy that it was the parent of peritoneal surgery, and that the governing principles of the one must govern all operations affecting the other. Dr. Sims arrived at the following conclusions:—1st. Wounds of the peritoneal cavity have a common course to run. 2nd. They have a common termination, and that is death by septicæmia. 3rd. That is the general law in death after ovariotomy. 4th. It is the

general law in death after gunshot and other wounds of the abdominal cavity. 5th. Septicæmia is the result of absorption of bloody serum found in the peritoneal cavity after wounds or operation. 6th. Gunshot wounds of the pelvic cavity are recovered from because of the natural drainage afforded by the track of the ball. 7th. Patients with gunshot wounds of the abdomen die of septicæmia because there is no natural drainage, and the bloody serum falls into the peritoneal cavity, and is there absorbed. 8th. The effect of bloody fluid upon the abdominal cavity is such as to demand abdominal incision, the suturing of wounded intestines, the tying of bleeding vessels, the cleansing of the cavity, and the use of the drainage-tube or not, according to circumstances. 9th. If this operation be well done there is hardly any need of a drainage-tube. Dr. Sayre expressed practically the same views as Dr. Sims. One of the chief features of the discussion was a speech by Dr. James R. Wood. He allowed much, but "not all the glory," to gynæcologists for the advance in peritoneal surgery. He cautioned the Academy against too quickly reasoning from the case of ovariotomy to cases of abdominal wound. He was especially cogent when he showed the difficulty of diagnosing the seat or the nature of the injury in gunshot cases, saying "with reference to reaching into the cavity of the peritoneum in search for bullets, or injured parts, it is a very serious matter"; also in pointing out the difference between a patient about to undergo ovariotomy and one recently the subject of gunshot injury. The one was not in a state of shock, and was well prepared for the operation. The general surgeon has the state of shock to deal with in gunshot wounds of the peritoneum. Such a note of caution from a surgeon of Dr. Wood's boldness and experience will not be misconstrued. It is obviously premature to apply the facts of ovariotomy to gunshot and other wounds of the peritoneum.

THE WEATHER.

THE weakly, indeed all but the most robust and those who have so habituated themselves to variations of temperature that these do not affect them injuriously, should be warned against this treacherous season with its peculiarly changeful weather. Not only does the atmosphere present alternations of heat and cold in relation to the animal organism which severely try the powers of adaptation, but in humidity and the electric condition there are just now occurring variations which render it almost impossible to preserve the normal state of health. Individuals differ widely in their personal normal condition, and it seldom happens that the weather is out of harmony with the constitutional tone of that class of the population without being in accord with that of some other. Incessant change is, however, disturbing to all habits of body and mind which have not been trained to self-reliance for the maintenance of health. It should be the aim of all who are compelled to live in the most capricious climate of England to cultivate the power of internal-heat production and of functional adaptation in such perfection that the weather may be a matter of comparative indifference. There is no great difficulty in achieving this physical and mental independence of climate if the organism be well developed, the nervous power sufficient, and the "spirits," consequently, buoyant and equable. A season like that we are now experiencing is not, however, the time to train. In the presence of the enemy we can only look to our defences against sudden loss of heat, and the sort of mental depression that exposes the nervous system to what is called "shock" from chill, should now engage the very serious attention of all who would not be placed *hors de combat* at the commencement of what, we are told, is not unlikely to prove an exceptionally hard winter.

OUR MILITARY PRISONS.

THE annual report of the Inspector-General of Military Prisons for the year 1880 has just been published. As usual, it gives very little information respecting the health of the prisoners; and that little is to be found not in the report itself, but scattered throughout the appendix. We have brought together the scraps relating to the military prisons in the United Kingdom with the following results. The average number of soldiers in prison throughout the year was 1713, of whom 1198 were in civil prisons, 407 in military prisons, and 108 in the military division of Millbank Prison. The total shows a reduction of 457 upon the results for 1879; but we fear that this has not arisen so much from a reduction in the amount of crime as from the changes in the system introduced by the Army Discipline Act of 1879. The cases of sickness among those confined in the military prisons amounted to 420, being in the ratio of 815 per 1000 of the average number in prison, or rather more than double that of 1879. The proportion constantly sick was 47·69 per 1000, or 10 per 1000 more than in the preceding year, and the average duration of the cases was 20·87 days, or nearly fourteen days less than in 1879. It would be interesting to ascertain to what causes this increase of cases and mean daily sick and the decrease in their duration may be attributable, but the report furnishes no information bearing on these points. Only one death is recorded; it occurred from gastritis at Gosport, but, as we pointed out before, the mortality may possibly be understated, as serious cases of illness are transferred to the military hospitals. The following table shows the amount of sickness and the duration of the cases in each of the military prisons in the United Kingdom in 1880, and for the purpose of comparison we have given the results for the preceding year:—

Military Prisons.	Ratio per 1000 of strength.					
	Cases.		Constantly sick.		Average duration of Cases.	
	1880	1879	1880	1879	1880	1879
Millbank	679·6	228·9	33·01	41·39	17·73	63·24
Gosport	1389·3	700·0	57·94	42·27	15·22	22·56
Glencorse	955·0	560·0	31·59	28·85	12·07	18·80
Cork	1017·4	1280·4	54·17	30·79	19·77	8·75
Dublin	443·3	227·5	61·54	32·76	50·10	52·56
Limerick	261·0	392·9	26·10	17·29	26·50	16·06

There has been a marked increase in the cases of sickness in all the prisons except Cork and Limerick; at Gosport the proportion has been very nearly double that of 1879. In the constantly sick there has also been an increase in all except Millbank, but there has been a considerable reduction in the duration of the cases except in Cork and Limerick, in both of which it has been doubled. Of the causes which have given rise to these variations we have no information, but the subject appears deserving of careful investigation by the War Office authorities. At Gosport, Cork, and Glencorse, the proportion of cases is higher than among the troops; at Gosport and Dublin the average constantly sick is greatly in excess, and in Dublin and Limerick, and to a less extent in Cork, the duration of the cases is above the average. It is an important point to ascertain whether these results are due to any insanitary conditions in the prisons, to inefficient administration, or to malingering. In the remarks of the medical officer of the Gosport Prison we find it stated that "the cooking of the diet is unvaried, there being no means for roasting or baking, a want which causes a monotony of diet." This, surely, is a defect likely to affect the health of the prisoners, which could be easily remedied at no great cost to the public. We have still to regret that no information is given as to the relative health

of the soldiers confined in the civil and military prisons. This will be of less consequence in future, as under the new regulations the number confined in civil prisons will be very small, but we would call the attention of the authorities to the necessity for establishing returns which will show the relative health of the men in the military prisons and the garrison provosts. Unless a careful supervision is exercised, we should not be surprised to find the system of garrison provosts exercising an injurious influence upon the health of the men confined. We trust the Inspector-General will, in future reports, furnish more detailed information regarding the extent and causes of sickness among the prisoners committed to the charge of his department.

EXCISION OF CALLUS.

IN the August number of the *Archives Générales*, Dr. Déleus records a very interesting case of fracture of the left clavicle. It occurred in a man, forty-two years of age, who at the same time received a fracture of two ribs on the left side, which so complicated the case that no proper apparatus could be applied to the clavicle. The fracture was in the usual seat, in the greatest convexity, and was attended with considerable displacement of the ends of the bone. Around these ends a large mass of callus developed, which two and a half months from the injury measured five centimetres from before backwards. This callus pressed upon the subclavian artery and brachial plexus of nerves, as was shown by weakening of the radial pulse, and wasting and loss of power in the whole upper extremity, with a sense of formication. By subperiosteal resection about eight centimetres of the bone and callus was removed. The radial pulse at once returned to the normal in size and force. Electrical treatment was applied to the limb and nerves in the posterior triangle and was attended with a gradual return of power and bulk. After three months the strength of the left arm nearly equalled that of the right, but abduction and adduction of the arm were not quite so free as on the sound side. The operation is a novel one, and not lightly to be resorted to. It is well known that large masses of callus become absorbed, but in this case the displacement of the fragments seems to have been so great and entirely uncorrected by treatment that a large mass of bone was of necessity formed to unite them together. Under these circumstances, and when it was made perfectly clear that nature unaided was insufficient for the task, the operation was justifiable. It is remarkable that there were not greater signs of venous obstruction from compression of the subclavian vein.

MORNING WORK.

PERHAPS, on the whole, moderately early rising is now a commoner practice in cities than it was forty years ago. It seems strange that the habit of lying in bed hours after the sun is up should ever have obtained a hold on the multitude of brain-workers, as undoubtedly it had in times past. Hour for hour, the intellectual work done in the early morning, when the atmosphere is as yet unpoisoned by the breath of myriads of actively moving creatures, must be, and, as a matter of experience, is incomparably better than that done at night. The habit of writing and reading late in the day and far into the night, "for the sake of quiet," is one of the most mischievous to which a man of mind can addict himself. When the body is jaded the spirit may seem to be at rest, and not so easily distracted by the surroundings which we think less obtrusive than in the day; but this *seeming* is a snare. When the body is weary, the brain, which is an integral part of the body, and the mind, which is simply brain-function, are weary too. If we persist in working one part of the system because some other part is too tired to trouble us, that cannot be wise management of self. The feeling of tranquillity which comes over the busy and active man about 10.30 or 11 o'clock ought not to be regarded as an incentive to work. It is, in fact, the effect of a lowering of vitality consequent on the exhaustion of the physical sense. Nature wants and calls for physiological rest. Instead of complying with her reasonable demand, the night-worker hails the "feeling" of mental quiescence, mistakes it for clearness and acuteness, and whips the jaded organism with the will until it goes on working. What is the result? Immediately, the accomplishment of a task fairly well, but not half so well as if it had been performed with the vigour of a refreshed brain working in health from proper sleep. Remotely, or later on, comes the penalty to be paid for unnatural exertion—that is, energy wrung from exhausted or weary nerve-centres under pressure. This penalty takes the form of "nervousness," perhaps sleeplessness, almost certainly some loss or depreciation of function in one or more of the great organs concerned in nutrition. To relieve these maladies—springing from this unsuspected cause—the brain-worker very likely has recourse to the use of stimulants, possibly alcoholic, or it may be simply tea or coffee. The sequel need not be followed. Nightwork during student life and in after years is the fruitful cause of much unexplained, though by no means inexplicable, suffering for which it is difficult if not impossible to find a remedy. Surely morning is *the* time for work, when the whole body is rested, the brain relieved from its tension, and mind-power at its best.

IRISH DETAILED CENSUS REPORT.

THE first instalment of the detailed Irish Census Report has recently been issued. It is, we think, to be regretted that the Irish Census Commissioners should have followed the precedent of the previous (1871) Census Report for Ireland, and decided to publish in full detail the elaborate series of thirty-eight tables for such small territorial divisions as the Irish counties. The first instalment, now before us, consists of nearly seventy pages, and relates entirely to the county of Carlow, the population of which in April last did not exceed 46,568 persons, and was scarcely more than half the population enumerated at the Census in 1841. As the number of counties of Ireland is thirty-two, and as the relative importance of County Carlow, judged by the population standard, is relatively small, we may easily calculate that this detailed Census Report when completed will consist of thirty-two instalments, at least equal to the one now published, making an aggregate of at least 2240 pages, without making any allowance for summary tables and report, and without which it would be, except locally, of little value. We agree with the Commissioners in thinking that, as regards much of the information, there is a public convenience in affording facilities for purchasing the Census Abstracts in territorial detachments; but many of the tables given in this report for County Carlow are really valueless, as they stand alone for a single county without any standard of comparison; and unless they are recast and republished in a different form, their use by any one wanting to take a comprehensive view of the varying conditions of different parts of Ireland will be attended with much unnecessary labour. Even in the tables of area, houses, and population the amount of detail is, compared with what is given in the English census, astonishing. Elaborate details are given for each townland; the average area of these townlands being less than that of an ordinary English farm. It is difficult to believe that this diffusiveness of detail can possess sufficient practical value to counterbalance the labour and cost of production and publication, and the delay which must necessarily occur before the report for the whole of Ireland is completed. We shall have occasion to refer to some of the tables in this detailed report, the information in which, when they relate to a more extended area, will possess much interest and value.

"THE COURT OF KING BUMBLE."

UNDER this descriptive title *Punch* for the 12th inst. gave the world a cartoon portraying a Parish Beadle dozing, with the Improvement Acts 1872–1879 on his knees, over the outfall of a pestilent sewer. Around are grouped starving, stricken, and dying folk, pitifully supplicating his aid in vain; while behind glides the fell ghost of Fever, with Death at its heels. No words are needed to tell the story of this powerful picture. It is a worthy representative of a long series of satires by which our humorous contemporary has slain many of the worst enemies of health and happiness, done excellent service to the cause of humanity, and advanced the prosperity of the people. There is no other weapon so effective as well-sharpened and good-tempered sarcasm. For the timely blow struck on the side of the distressed poor against official indolence and incompetency all who are interested in health-preservation owe the London *Charivari* a debt of gratitude, which we are glad to acknowledge. It is strange to reflect how much of suffering, disease, and death is inflicted on the population by the apathy of officials of all grades and classes. When the holder of an office—whether it be one to which emolument is attached or simply a post of honour—has done just enough to show himself in possession, he is content to let matters drift. However vehement may have been his own denunciations of official idleness or incapacity before he himself took office, he falls into the dull routine after his appointment. If he is an intelligent man, with a character for enterprise to maintain, he generally makes the convenient discovery that his "powers" are not sufficiently large to enable him to do all he could wish; but he does nothing to bring the deficiency before the Legislature, and to get it supplied. An "open mind" is a great boon to the administrators or head of any public department, and particularly useful to a Cabinet minister. It enables him to postpone the satisfaction of claims on his attention, however importunate they may be. He can take the question of policy into "consideration," and doze tranquilly while the wrong or grievance he has been asked to redress remains without remedy. When, by-and-by, something goes amiss, and an outcry is raised, he can plead that his "powers" did not admit of his doing anything to prevent the catastrophe. Mr. Dodson, from whom we once hoped so much, the supreme King of Bumbledom, sleeps pleasantly at his post. He is a Minister of Health, and he is in the Cabinet, but his powers are not large enough for the development of his ideas, and so what can he do but slumber, though disease and death stalk through the land?

AUDITORY ACCOMMODATION.

PRESSURE upon the tympanic membrane of the ear is transmitted directly to the base of the stapes, and Lucas, by digital pressure on the meatus, has endeavoured to ascertain the degree of mobility of the stapes in the fenestra ovalis by the sensations produced by the consequent excitation of the labyrinth. This experiment is not well borne by patients; the pressure of the finger causes pain, while the auditory sensations are obscured by adventitious sounds. Hence M. Gellé has endeavoured to modify the experiment in the following manner. An india-rubber tube is hermetically fixed in the patient's meatus, and is connected with an insufflating instrument. A vibrating tuning-fork placed on this tube causes an acute sensation. If the air is then compressed, the sound of the tuning-fork, in a healthy ear, is immediately rendered fainter. The cessation of the pressure causes the note to return to its normal intensity. If the tuning-fork is placed on the forehead, precisely the same phenomena are observed when the air in the meatus is compressed. If, however, the ear is in a morbid state these effects are modified by the altered conditions of mobility and elasticity of the apparatus for accommodation. The most frequent effect is that instead of the compression diminishing the sound, this is suddenly and completely extinguished. Sometimes, in a series of alternate compressions and relaxations, the extinction of the sound does not occur at the first shock, but at the second or third. In other cases, again, the compression is entirely without influence on the intensity of the sound. Under normal conditions no pain is produced by the experiment, but in morbid states the sudden pressure often causes a more or less acute pain at the situation of the tympanum; in other cases a sudden humming is produced. Rarely the compression, however carefully effected, causes a sensation of vertigo similar to that which occurs in Menière's disease. M. Gellé claims for this method extreme delicacy. The degree of compression of the air can be measured by a dynamometer. He has attempted to ascertain the variation in pressure necessary, under normal conditions, to vary the sound. The experiments indicate the part played by the mechanism of accommodation for the protection of the ear, for it is apparently by the action of this mechanism that, under increased pressure, the sounds are weakened. It is probable, however, that by this method of investigation more may yet be learned regarding the phenomena of conduction.

MR. SPENCER WELLS.

A FEW days ago Mr. Spencer Wells was entertained at dinner at Brebant's by many of the physicians and surgeons of Paris. There were present, among others, Professors Gosselin, Tillaux, and Peter; Dr. Henry Guéneau de Mussy, M. Jules Worms, and the Hon. Alan Herbert, M.D., Physician to the British Embassy and to the Herbert Hospital. Professor Gosselin proposed the health of Mr. Wells, and described the great service he had done to humanity and science. Such incidents as these have an international as well as a personal interest. All English surgeons will rejoice to hear of this compliment by the profession in Paris to Mr. Spencer Wells, whose work not only marks an era in surgery, but in a striking way represents all that is best in English surgery—viz., carefulness in detail and practical and beneficent results. In an international respect such hospitalities are very gratifying. The medical profession of the world has this year in London had its great Œcumenical Council, and its members have gone back to all parts of the globe with a great sense of scientific brotherhood and co-operation. Professor Gosselin made graceful allusion in his speech to the hearty reception given to French doctors by our English brethren. It would have been strange indeed if it had been otherwise. When the international attitude of France and England was very different from what happily it has of late years been, we had nothing but a welcome for the *savants* of France—for such men as Cuvier and Magendie and Louis. Still warmer must be our welcomes now when the nations are neighbourly in their feelings, and the greatest statesmen of both countries aim only at developing all friendly relations.

LEAD IN ARTICLES OF DIET.

EXCEPT among the classes of workers who are specially exposed, lead-poisoning is not a common disease. It is generally believed that the risk of acquiring it is one to which few people are exposed, and that the danger can be readily guarded against. Such is not the opinion of a French physician, M. Gautier, who has read to the Académie de Médecine a paper which will not reassure the nervous people whose chief object in life is to keep all gates closed through which disease may find an entrance. According to M. Gautier, no substance has more avenues of entrance into the body than lead. He asserts that our ordinary com-

plaisance is the result of imperfect analysis. By employing new chemical procedures he has found lead, if not everywhere, at least in disquieting prevalence. Preserved fruits and meats are never free from it. The solder used to secure them consists of tin and lead, and the contents of the cases commonly include lead. Preserved peas contain 2·5 milligrammes per kilogramme, a proportion which will be less alarming if we remember that it is but one part in 40,000, and that it would be necessary to eat about forty pounds of preserved peas to ingest a single grain of lead, the effects of which would, we suspect, be among the minor consequences of the diet. Preserved fish, on account of the oil in their composition, are said to be more dangerous, and to contain twenty or thirty milligrammes of lead per kilogramme. Consumers of American preserved meats, however, may be happy, for M. Gautier has found in them only "traces" of lead; but the meat furnished to the unfortunate French soldiers contains ·0081 per cent. of lead. No water supplied to Paris is free from it, and all brandies, wines, and bottled beer contain small quantities. "On all sides," he concludes, "we are invaded by lead." But, as M. Rochard pointed out in the discussion which followed, M. Gautier's facts are, after all, reassuring. If lead is thus being taken in food and drink by large numbers it is taken with impunity; and the excessive rarity of cases of lead-poisoning in which some other mode of entrance is not discovered proves that the danger he has pointed out is as infinitesimal as the quantity of lead he has detected.

THE YELLOW FEVER AT BARBADOES.

HER MAJESTY'S troopship *Orontes* arrived in Plymouth harbour on Nov. 11th from Barbadoes, bringing the 1st battalion Royal Lancashire Regiment, ordered home on account of the prevalence of yellow fever in the island, from which disease the regiment had suffered very severely. Several cases, six of them fatal, occurred during the voyage, and on arrival, as the yellow flag was flying, the ship was placed in quarantine till the health officer of the port had made his inspection, when she was granted *pratique* and the troops disembarked. Surgeon-Major Campbell and Surgeon W. A. Parker arrived in the vessel from the West Indies, Surgeon-Major Henry Stannard, from Honduras, also being provided with a passage to England. It is anticipated that a regiment from Malta will be ordered to Barbadoes as soon as the local authorities consider the epidemic to have passed off and after the barracks have been thoroughly disinfected and cleansed. The medical department suffered severely during the outbreak—four medical officers, Surgeons-Major Espine Ward, Surgeons Ronayne, J. R. Oliver, and W. Deane Freeman, losing their lives; whilst several other medical officers were attacked by the disease, but happily recovered. Deputy Surgeon-General H. Reade, V.C., Principal Medical Officer in the West Indies, has been invalided to England, his health having suffered considerably from his exertions during the trying time of the epidemic.

TEMPERANCE AND TEETOTALISM.

THE best of men have often incongruous faults; so it is with teetotalers, or with some of them. There is an intemperance of teetotalers. Unless drunkenness is reduced and drunkards are reclaimed exactly in their way, there is an ungraciousness about their recognition of the good done. The *Temperance Record* looks upon the proposal to establish a temperance movement, as distinguished from a teetotal one, as a positively hostile proposition. Referring to our advocacy of Dr. Clark's proposal for the establishment of a society in which the tendency of all men to drink shall be seriously restrained within prescribed quantities, and by strict social rules, the *Record* says, "Why should *our* efforts for the spread of true temperance be *hindered* (*sic*) by the establishment of a new moderate drinking confederation?" Surely there are both narrowness and undue self-satisfaction in this position. We admit that for the reclamation of drunken men, or men verging on drunkenness, the best, if not the only course, is to "cut the painter" without delay, and not to look at alcohol in any shape or form. But what is the burden of the testimony of medical men in hospitals, on Royal Commissions, and elsewhere? It is this—that numbers of men and women are generating disease by what they think reasonable quantities. Well, all but intemperate teetotalers will see that it would be a real gain to educate people up to the point of at least taking only a physiological quantity; of taking this only with meals; of refusing all drink at odd hours, in public-houses, and with stray companions; of inducing, in short, all reasonable, thoughtful, and kindly people to put themselves into an attitude of suspicion and hostility towards habits that prove so degrading to the people of this country. Thousands of people would be ready to come under such restraints who do not see it to be their duty to become teetotalers. And we think the *Temperance Record* would do well to accept them, not as "hinderers," but as fellow-helpers of their work.

THE VAGUS AND THE EAR.

IN a series of experiments as yet unpublished, which have been made by M. Wiett on the effects of stretching the pneumogastric nerve in rabbits, the effects on the ear were studied by M. Gellé. He found lesions in all respects similar to those which are produced by laceration of the medulla or irritation of the fifth nerve, hæmorrhages and suppuration, with destruction or ulceration of the tissues. In one case the mischief was limited to the external auditory meatus, and consisted in a hæmorrhage into the lining membrane and periosteum of the lower wall. In another the meatus contained a still larger clot, and in the middle ear was a quantity of semi-solid creamy pus, which filled the chamber and had escaped into the external auditory meatus through the membrana tympani, which was softened and perforated. The ossicula were displaced with the exception of the stapes. The liquid of the internal ear was bright red in colour.

HOSPITAL SANITATION IN THE SIXTEENTH CENTURY.

THE Rev. W. K. R. Bedford, a chaplain of the Order of St. John of Jerusalem, recently read a paper on the old hospital belonging to the order in the island of Malta. Apart from the interest of the information there given to antiquaries, and to all the knights of the order, it has special interest for the medical profession, as giving an insight into the views of hygiene, physiology, and pathology current three hundred years ago. The order first visited Malta in 1530, and took possession of a small hospital in Citta Vecchia, the ancient capital, part of which is still remaining and occupied by a small number of patients. About three years later another building seems to have been erected in the Borgo City, near the harbour of St. Angelo, some of which still stands, and is used as a nunnery. But in 1575 another and larger hospital was erected on the other side of the grand harbour. It was "situated on the south-eastern side of Valetta, close to the great harbour, from whence it is separated by a narrow public road and wall. The site is the lowest on that side of the town, and all the ground falls towards it." The drains of the town were, and still are, discharged into the sea close to the building. Facing the sea the hospital was exposed to the sirocco, while at the back it was protected from the healthy north and north-western winds by the fort of St. Elmo. The wards were fine apartments, but the windows were made very small and high, and all along

their seaward side were ranged niches, one to every two beds, which were used as latrines. The walls were hung with tapestries, and at certain times of the year with paintings, and as it was impossible to look out of the windows, they afforded the sole objects other than the patients on which the eye could rest. Nearly 140 years later several additional buildings were erected, but on a level thirty-five feet above the rest of the hospital, and so effectually shutting out still more air and light from it. A retrospect of this kind proves, indeed, that we have advanced in our knowledge of the laws of hygiene and pathology. For the building of such a hospital shows that those responsible for it were ignorant or careless of the deleterious effects of sewage emanations, a low situation, bad ventilation, gloom, and of the depressing influences of the relaxing sirocco.

THE INFLUENCE OF DIGITALIN ON THE BLOODVESSELS.

IN the volume of the *Archiv für Physiologie*, just published, Ferdinand Klug gives the results of an extensive series of observations he has made in regard to the action of digitalin on the vascular system. His experiments were made upon various mammals, and the results at which he has arrived he sums up in the following propositions:—1. Digitalin acts less powerfully upon the vascular system of the rabbit than upon that of the dog. 2. In small doses it simply augments the blood-pressure; in somewhat larger doses it influences the action of the heart. 3. Large doses of digitalin, especially if introduced directly into the jugular vein, diminish the frequency of the cardiac beats in consequence of their exciting the vagus centre. 4. The increased frequency of beat following this is not due to paralysis of the vagus, but is the result of diminished action on the vagus centre and augmented excitability of the accelerating cardiac ganglia. 5. Whilst the cardiac beats are rendered more frequent, the excitation of the vagus centre progressively diminishes, so that this centre may be said to be first exalted, and then slowly depressed. 6. Death from digitalin results from paralysis of the central nervous system. 7. The augmentation of the blood-pressure which constantly follows the injection of digitalin results from the action of the poison on the vaso-motor nerve-centres and upon the muscle cells of the vascular walls. This last circumstance is also the immediate cause of the increase of the blood-pressure that results from the injection of digitalin after section of the spinal cord.

UNSOUND BENEFIT SOCIETIES.

A RETURN has recently been issued bearing the signature of the Secretary of the Local Government Board, showing the number of paupers who, being inmates of the English workhouses in March last, had been members of benefit societies. The return also purports to show the reason of these persons ceasing to be such members, whether by non-payment of contribution, withdrawal, or dismissal, or through the breaking up of the societies to which they belonged. It appears that no less than 11,304 of the adult male paupers in the workhouses on the 31st of March last had previously been members of various benefit societies, 7391 had ceased to be members through non-payment of contributions, withdrawal, or dismissal, and 3913 through the breaking up of the various societies. That considerably more than a third of these paupers who had ceased to belong to benefit societies should have been victims of the collapse of the societies to which they belonged is sufficiently noteworthy, but the hardship appears still greater that 1026 should have been members of their societies between ten and twenty years, 612 between twenty and thirty years, and 555 for upwards of thirty years. So large a proportion of pauperism is due to sickness, and so important is the influence of sound benefit societies upon the reduction of this class of pauperism, that we may well hope for the realisation of the Postmaster-General's promise to seriously consider the means for popularising the system of Post-office insurance and its adaptation to the wants of the working-classes, who are now constantly the prey of unsound benefit societies.

CONJOINED TWINS.

ONE of these rare cases occurred last week in the out-department of Queen Charlotte's Lying-in Hospital. The female eight months' children are broadly united in front from the manubrium sterni to the umbilicus, and there is but one common funis. Below the funis and above the sternum both are perfectly formed. Though stillborn, they were undoubtedly alive shortly before delivery. They measure fourteen inches, and the two weigh but five pounds. They are equal in size, and owing to the broad attachment are perfectly parallel, face to face. The first head that presented was, from delay in the second stage, delivered with forceps. This brought the other head forcibly against the abdominal wall above the pubes, and there still being obstruction to delivery, a monster was easily diagnosed. As the children were small, delivery was completed in the following order: First head, shoulders, back, breech, then the four legs, after which the body, thorax, arms, and head of No. 2. The specimen will, we understand, be shown by Dr. Percy Boulton at the December meeting of the Obstetrical Society of London.

THE FRENCH IN TUNIS.

THE health of the French troops in Tunis is very unsatisfactory. Fever and dysentery are extremely prevalent, and apparently of a severe type. The hospitals are crowded, the deaths numerous, and the numbers invalided to France very large. No detailed information is given as to the strength of the troops at the various stations, and without such information any statement of the numbers sick and of the deaths is of no value. But the sickness at Tunis is said to be assuming an epidemic character, and at Kairwan to be increasing, notwithstanding the departure for Susa of numerous convoys of sick in consequence of the arrangements at Kairwan being wholly insufficient. In the Susa Military Hospital the deaths average four per diem out of 670 sick. It would be interesting to learn particulars of the arrangements for the care of the sick, and how far the supplies of food, medicines, and hospital comforts provided by the Intendance are adequate to the requirements.

THE PATHOLOGICAL ANATOMY OF RELAPSING FEVER.

IN the town of Kasan relapsing fever has been constantly present since its appearance in the year 1865. At times the cases were few, but often for months together the admissions into hospital amounted to ten or more per diem. Towards the end of 1879 the cases assumed the form to which the Germans have given the name of "typhus biliosus," and a series of facts regarding the pathological changes met with in the bodies of persons dying of this form have been made by Dr. Lubimoff, who communicated some of his results to the local Society in May, 1880, and has lately published an important series of additional facts in the *Centralblatt für die Med. Wissenschaften*. The most conspicuous changes are found in the spleen, liver, heart, kidneys, lungs, brain, serous and mucous membranes, and in the bone marrow. In the spleen the Malpighian corpuscles were swollen in various degrees, forming yellowish-grey foci. Infarcts were also found, various in number and in size, sometimes occupying almost the whole of the splenic

parenchyma. Sometimes the individual infarcts were surrounded by a thick purulent fluid. In one case the organ contained numerous cavities, filled with a similar but more offensive fluid, and the splenic vein contained a soft thrombus. In the liver parenchymatous swelling or interstitial inflammation was found. In two cases there were abscesses, and in one there was a soft thrombus in the hepatic vein similar to that found in the splenic vein. The heart presented cloudy swelling. In the kidneys there was either parenchymatous swelling or small circumscribed foci of interstitial inflammation, sometimes amounting to minute abscesses in the pyramids or the cortex. The lungs presented œdema, pneumonic infiltration, or miliary bronchopneumonia. In one case abscesses were found in the brain. In the serous and mucous membranes hæmorrhages were most frequently present. In the bone marrow the change consisted in foci of suppuration and necrosis, similar to those observed some years ago by Ponfick in an epidemic which occurred at Berlin. Colonies of micrococci were found in the bloodvessels of the organs, which contained abscesses. In a recent case, active spirillæ were observed in the Malpighian bodies of the spleen.

ROYAL UNIVERSITY OF IRELAND.

IN order to solve any doubts which might exist as to the position to be taken by students of the Queen's Colleges, in relation to the Royal University, the Senate, at a meeting held last week, passed the following resolution:—"All students of the Queen's University, at the time of its dissolution, shall be entitled to present themselves for examination only in the Royal University, in the respective faculties, according to their status in the Queen's University, and in the subjects prescribed by the curriculum of that university, and according to the regulations in force at the time of its dissolution, provided that they shall not be entitled to the honours, exhibitions, or prizes maintained by the funds of the Royal University. This provision shall extend to all matriculated students of the Royal University."

PROFESSOR VIRCHOW'S TESTIMONIAL.

THE University of Turin, at a general meeting of all the professors belonging to each Faculty, held on Sunday last, Nov. 13th, in the Central Hall, on the proposal of Professor Pacchiotti, supported by Professor Concato, decided unanimously to join in the testimonial which their brethren of Germany and England are intending to present on the 19th inst. to Professor Virchow, on the occasion of the completion of the twenty-ninth year of his professorship in the University of Berlin, and of his sixtieth birthday.

THE HOUSEHOLD USE OF "POISONS."

IT is doubtless inevitable that "poison" should be commonly used in households for the purpose of destroying the rats, mice, and other vermin with which many houses are infested, but the necessity is to be greatly deplored. The number of deaths known to be caused by misadventure in the use of poison is considerable. Cases of suicide by a means of destruction always too readily procurable, and generally at hand, are many, and of frequent occurrence, while the unrecognised deaths through accidental or intentional taking of vermin killers probably exceed the known. The law relating to the sale of poisons has never been effective. It does not impose satisfactory restrictions on the purchase of many dangerous drugs, while it leaves the supply of poisons made up in packets for the destruction of small animals almost without necessary safeguards. These are fatal defects in the law on this subject, and they render the working of the Acts abortive. When circumstances tend to exert a morbidly disturbing effect on the mind, the fact that means of self destruction lie ready to hand, or can be quickly and easily procured, is likely to suggest suicide. It is the duty of the State to prevent the unguarded sale of poisons, and the present condition of the law is a reproach to the Legislature.

PSEUDO-ERYSIPELAS FROM THAPSIA.

TWO cases in which an eruption on the face was produced by the application to the chest of a plaster made from the root of Thapsia garganica have been recorded by Comby. These plasters are a popular remedy in France. A local irritant effect is produced in a few hours, and the next day myriads of small vesicles and pustules are produced at the spot and in its vicinity, the skin between them being bright red. In one of the cases described, there was also, when the plaster was removed, swelling of the face, which rapidly increased to such a degree as to close the eyes, and on the reddened skin vesicles and bullæ appeared. There was no fever or enlargement of the glands, and the eruption gradually subsided. In the other case two plasters had been applied to the chest, and a very similar eruption appeared on the face, which ran a similar course. The eruption appeared simultaneously in all the parts affected, and did not spread as does erysipelas.

FOULIS MEMORIAL.

THE lamented death of Dr. Foulis has excited great sympathy in professional circles in the west of Scotland, and upwards of £200 has been subscribed without any effort or canvassing. It is proposed to raise a capital sum, the interest of which will amount to £50, for a scholarship, to be given to the most deserving student of pathology connected with the Glasgow school, University or extra-mural. Dr. Foulis's intimate friend, Dr. J. G. Lyon, 276, Bath-crescent, Glasgow, acts as treasurer, and with him is associated Dr. Eben. Duncan, 4, Royal-crescent, Glasgow, either of whom will gladly receive and acknowledge subscriptions from distant friends or former pupils.

DUBLIN HOSPITAL SUNDAY FUND.

COLLECTIONS in aid of this Fund were held last Sunday, and as the weather was tolerably fine, the congregations attending the churches were larger than usual. The total amount will not be known for some time, but as far as can be ascertained, it is probable that the gross result will not be below that of last year. The football match played on Saturday was very successful, a sum exceeding £41 after payment of all expenses having become available for the charitable object.

DEATH OF INSPECT.-GEN. S. M. HADAWAY.

WE much regret to record the death of Inspector-General S. M. Hadaway, late of the Army Medical Department, from the effects of a street accident on the 9th inst. Mr. Hadaway was injured by the wheel of a heavy van crushing him against the kerbstone while attempting to cross a street in the City; he was taken to St. Bartholomew's Hospital, where he died shortly after from the effects of shock. He was in his 76th year. Mr. Hadaway was formerly Principal Medical Officer of the Madras Army. He retired from the service in 1872.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AN election for a member of council took place last Saturday and resulted, as was expected, in an easy victory for Mr. Butcher, who obtained 64 of the 104 votes polled. There were three candidates for the vacancy which occurred in consequence of the death of Dr. Alfred H. M'Clintock.

AT the Wallingford County Bench on the 4th instant, Mr. Arthur Augustus Sadgrove was charged, on remand, with having, at Upton, feloniously and without lawful authority uttered to Thomas Scott a certain document purporting to be a legally executed diploma from the Faculty of Physicians and Surgeons of Glasgow, he knowing the same to be forged. After hearing various witnesses the magistrates committed the defendant for trial.

AN accident which might have been attended with alarming consequences occurred to Sir E. B. Sinclair, M.D., of Dublin, last week. The horses attached to his carriage took fright, and dashed off until the vehicle came against a lamp-post and was overturned. Curious to state, although the lamp-post was broken into several pieces, yet no injury was received by Dr. Sinclair, his horses, or vehicle.

THE King of Sweden and Norway has just conferred upon Dr. Alfred Meadows the Commandership of the 2nd Class of the Order of Wasa, in recognition of services rendered by him during His Majesty's stay at Bournemouth last spring, and for professional services to the Crown Prince of Sweden during his visit to England. The insignia of the Order were officially presented to Dr. Meadows by his Excellency Count Piper, the Swedish Minister Plenipotentiary at the Court of St. James.

THE death of Surgeon A. F. Adams, of the Indian Medical Department, occurred at Kurrachee on Oct. 17th. He was for many years Civil Surgeon of Shirkarpur, where he was warmly esteemed and beloved. At his funeral, which was conducted with military honours, Brigadier-General Oldershaw, C.B., and the officers of the garrison attended to pay their last sad respects to one who died universally regretted.

A FULL report of the proceedings at the unveiling of the statue of Harvey at Folkestone has just been published. It contains a verbatim report of Professor Owen's powerful plea in favour of vivisection. We hope that its low price, fourpence, will secure it a very wide circulation.

DR. W. A. HERDMAN has been appointed to the Professorship of Natural History at University College, Liverpool. The chair was founded by the generosity of Lord Derby. The chair of Chemistry in the same college has been allotted to Dr. J. Campbell Brown.

AT a meeting of the Senate of the Royal University of Ireland the following resolution, proposed by Dr. Lyons, M.P., and seconded by Dr. Banks, was unanimously adopted:—"That the Senate desires to record its sense of the loss this University has sustained in the death of Dr. Hayden."

THE death is announced at Delhi of Surgeon-Major Adam Taylor, Bengal Medical Service, on Oct. 24th, from an attack of measles. Dr. Taylor entered the Indian Army in 1857, and had lately been appointed Civil Surgeon and Superintendent of the gaol at Delhi.

THE contest for the Lord Rectorship of Aberdeen University was decided on Saturday last in favour of Dr. Alexander Bain, who obtained a majority of 206 votes over those recorded for Sir James Paget, who polled 238.

THE new French Ministry includes M. Paul Bert, who has accepted the portfolio of Education and Public Worship.

THE circumstances attending the death of Mr. W. Booth, Surgeon, which were made the subject of a coroner's inquest on Wednesday last at St. Bartholomew's Hospital, appear from the newspaper reports to be of a nature to call for strict investigation. The inquiry has been adjourned.

THE Madras papers record the death of Surgeon-Major E. Trenmill, attached to the 39th Madras Native Infantry, on Oct. 25th, from disease of the kidneys.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Port of London.—Dr. Collingridge's report for the half-year ending June 30th, 1881, contains much of interest. It shows a considerable increase in the number of vessels inspected, and a steady decrease in the number of vessels requiring to be dealt with by the sanitary authority. In the half-year to which the report refers 9346 vessels were inspected, the largest number inspected in any half-year since the formation of the authority, and the number of vessels requiring cleansing, which at the commencement of the systematic examinations carried out by the authority had been 17 per cent., had fallen during the latter half of 1880 to 3 per cent.; so beneficial has been the effect exercised upon the sanitary condition of vessels visiting the Thames by the work of the Port Sanitary Committee. The epidemic of small-pox prevalent in the metropolis was not without its effect upon the population of the shipping in the river and docks, and it became necessary to use the hospital ship *Rhin*, lying off Gravesend, for the reception of cases of small-pox, and the Committee sanctioned free vaccination by their medical officer of sailors visiting the port, who were anxious for the operation. Seventeen cases of small-pox appear to have been removed from shipping in the river and docks and conveyed to the *Rhin*, and the Port Sanitary Authority even proffered the use of this vessel for the reception of cases of the disease from the City at a time when the hospital accommodation in the metropolis failed. Taking a hint from the *Rhin*, the Metropolitan Asylums Board, as is now well known, established a large hospital ship, the *Atlas*, with attached administrative ship, the *Endymion*, in Deptford Creek. Dr. Collingridge held it necessary to protest, on account of the populous character of the stream and banks there, against the site chosen by the Asylums Board for the mooring of these ships; but in replying to his protest the Asylums Board observed, "that the Local Government Board had taken all the responsibility of selecting Deptford for mooring the ships, and that had it been left to the Board they would probably have chosen another point. The sanction of the Thames Conservancy was given on the condition that they should remain there only while the epidemic lasted." An outbreak of small-pox in Boulogne also gave occasion for anxiety in the river work, steamers arriving in the Thames almost every day from the French port. The appointment of additional inspectors has enabled Dr. Collingridge to appoint separate inspectors for the docks north and south of the river and ships lying in the stream. By this arrangement it is possible to inspect the whole series of docks daily. He has induced, moreover, the Surrey and Commercial Dock Company to appoint an official whose sole duty it is to look after the closets of the docks, an arrangement which is found to answer very well in maintaining the sanitary condition of the dock precincts. A reference to a reported introduction of plague in the Thames we dealt with in the last issue of THE LANCET. A large increase in the amount of emigration from the Thames occurred during the six months to which the report refers. During March the number of emigrants to New York carried in "long ships" had been 1256; in April, 5083; and in May, 6756. During the six months, moreover, 2212 emigrants had shipped for the Australasian colonies. The emigrants were chiefly Germans and representatives from most parts of Central and Eastern Europe. For some time emigration

from the Port of London has been falling off, and it appeared as if this port would cease altogether to be an emigration port. What has given rise to the renewed flow of emigrants to the port is not explained, but the augmented flow has called for renewed and increased attention to the emigrants as possible carriers of contagion. The existing pollution of the Thames receives attention. The Port Sanitary Authority is powerless as concerns pollution from the main sewerage of the metropolis, as this is guarded by special Act of Parliament; but it has done, and is doing, much to divert sources of pollution which fall under the requirements of the Rivers' Pollution Act and the Public Health Act. A difficulty here has been encountered, however, from the City Solicitor having advised the Port Sanitary Authority that it is not a sanitary authority under the Rivers' Pollution Act. Whether the error here is in the application of the Act, or in the form of the statute, we do not pretend to know, but it is a difficulty which, at least, should be cleared away next Parliament. The health of the training ships on the Thames (population, boys, about 1750) was exceptionally good during the six months to which the report refers. The hospital ship *Rhin*, although described as unsuitable on account of age and size, still has to serve the Committee; but surely if the Asylums Board can obtain such ships as the *Atlas* and *Endymion* for hospital purposes the Corporation ought not to suffer itself to be fobbed off, or to put up with so imperfect a vessel for its purposes. We congratulate the Port Sanitary Committee and its medical officer on the continuing efficiency and excellence of their work.

Paddington (*Metropolis*).—Dr. Stevenson, guided by the recent census, estimates the population of Paddington in the middle of 1880 to have been 106,258, and he gives the birth-rate of the parish for the year 1880 at 26·7 per 1000 inhabitants, and the death-rate at 15·7, the corresponding rates for the whole metropolis being, births 36·2, and deaths 22·2 per 1000. The zymotic death-rate for the parish was 2·1 per 1000 living, as compared with 3·7 for the whole of London. No death from small-pox was recorded, and only 10 cases were removed to hospital. Measles, scarlet fever, and diphtheria were somewhat in excess, but Paddington suffered less than the metropolis generally from whooping-cough, "fever," and diarrhœa. In regard to the decline of "fever" mortality, Dr. Stevenson holds that it indicates that "sanitary requirements and the expenditure in connexion therewith, have not been wholly unproductive of good." Dr. Stevenson, guided more by the chemical data of Dr. Frankland than the health history and condition of his own parish, draws a picture of the water-supply of London as derived from the Thames and the Lea which is revolting, and which shows that the future of the water-supply will be worse than the present. He has not corrected his chemical data by the results of the investigations of Messrs. Crookes, Odling, and Tidy; and indeed, makes no reference whatever to the results of the analyses made from day to day by those observers. Moreover, he makes no attempt to reconcile his picture of the water-supply with the health condition of his parish. Dr. Stevenson's opinions, formed from the observation of the influence of the water-supply upon his own parishioners, it may be very justly assumed, would be more trustworthy than opinions formed upon chemical analyses.

MARYLEBONE.

Two resolutions were submitted to and adopted at the last meeting of the Marylebone Vestry which throw a significant light upon the recent unsatisfactory proceedings in that parish. One, moved by Mr. Galsworthy, J.P., was to the following effect:—"That the Sanitary Committee be requested to continue their communication with the medical officer of health, with special reference to the services rendered by the inspectors of nuisances, with a view to a continuous and more perfect inspection of the state of the parish and its dwellings, and to report to the vestry their opinion whether the medical officer requires any, and if so, what further assistance for making a complete examination of the parish, and taking such steps as to leave no premises therein in a condition or state dangerous to health, so as to be unfit for human habitation." The other resolution, moved by Professor Marks, was as follows:—"That the Parliamentary Committee be requested to inquire into the operations of the existing sanitary Acts of Parliament, in as far as they affect the action of the vestry and their relation to the medical officer of health and the inspector of nuisances, with the view of enabling the vestry to carry into effect, with increased facility and despatch, the sanitary duties imposed on them by the Legislature." From this it is reasonable to infer that the Marylebone Vestry, or its sanitary committee, have not yet made themselves familiar with the sanitary law which they are presumed to carry into effect, and not even acquainted themselves with the provisions of the Sanitary Act, 1866. This being the case, it will excite no surprise that a localised outbreak of typhus in Lisson-grove proved more than the vestry could conveniently manage, except at the risk of spreading the infection broadcast in the metropolis. The application of Torrens' Act to stay an outbreak of typhus is certainly a novelty in dealing with infectious diseases.

Mr. Hedley, on behalf of the Local Government Board, has held an inquiry concerning the facts disclosed at a recent inquest implying blame in respect to a district medical officer and a relieving officer of St. Saviour's Union, Southwark. The medical officer was charged with issuing improper certificates to the relieving officer, and the relieving officer was charged with having behaved harshly in a given case. The evidence collected during inquiry has been submitted to the Local Government Board for their decision.

The City of London Union is holding a formal debate, which has been continued now over two meetings of the Guardians, and will continue longer, on the Metropolitan Asylums Board. The discussion appears to have been provoked by the asserted extravagance of the Board, and certainly the financial and other administrative actions of the Board are not spared by the guardians who take the principal part in the debate.

Considerable excitement has arisen at Mile-end in consequence of a report having become current that the guardians of the parish had given direction for the sale of flocks from beds which had been used for cases of infectious disease, the ticks having been destroyed. An application for advice was made by one ratepayer to the police magistrate, Mr. Lushington, on the subject.

Dr. Thorne Thorne and Mr. Davy, of the Local Government Board, attended a joint meeting of the Normanton, Altofts, and Whitwood Local Boards on the 10th inst., for the purpose of considering the advisability of erecting an infectious disease hospital for the three districts. It was resolved by eleven votes to four of the representatives of the Local Boards present to erect a hospital.

Dr. Seaton, the medical officer of health for Nottingham, has recently delivered before the Nottingham and County Cobden Club a lecture on "The Death-rate as a Test of the Sanitary Condition of any Place." The lecture formed one of a series of lectures on "Public Health" arranged by the Literary Committee of the club.

The Sanitary Committee of the Hull Corporation have, in view of the epidemic of scarlet fever prevalent in the borough, been making arrangements for the extension of their infectious-disease hospital. The dock company have agreed to let them 600 square yards of land for the purpose.

The Wandsworth District Board of Works have found it necessary to institute proceedings against a boy's school at Roehampton for its insanitary condition. The magistrates granted the order for improvement of the state of the school prayed for, the work to be completed within a month.

The Local Government Board have declined to approve the appointment of a Poor-law medical officer as medical officer of health of the Stockton Urban Sanitary District, on the ground that the performance of the duties would be inconsistent with those required by the Poor-law.

The Medical Institution of Liverpool, of which Mr. Reginald Harrison is President, have formulated a series of resolutions objecting to the proposed amendments of the Sanitary Acts by the Corporation in regard to the notification of infectious diseases.

A deputation from the health committee of the Chester Urban Sanitary Authority has had an interview with the President of the Local Government on the subject of the pollution of the river Dee by the sewage of Llangollen.

Under the heading of "Another Fever Den" a series of dangerous illnesses is reported from Bow, in a family living under grossly unwholesome conditions. A somewhat similar case is also reported from Chesterfield.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The rate of English urban mortality showed a further slight increase last week, when 5531 births and 3264 deaths were registered in twenty of the largest towns. The annual death-rate in these towns, which had steadily increased in the six preceding weeks from 17·9 to 22·8, was last week 22·4. The lowest rates were 11·9 in Leicester, 13·7 in Wolverhampton, 15·9 in Bradford, and 16·0 in Norwich and Plymouth; the rates in the other towns ranged upwards to 24·6 in Manchester, 28·5 in Liverpool, 29·1 in Salford, and 30·6 in Hull. The mean death-rate in these towns during the last six weeks has been somewhat below the average rate in recent corresponding periods. The deaths referred to the principal zymotic diseases in these towns were 504 last week, and 33 less than those in the previous week; they included 142 from scarlet fever, 112 from measles, 76 from "fever" (principally enteric), 73 from whooping-cough, 39 from diarrhœa, 34 from diphtheria, and 28 from small-pox. The annual death-rate from these zymotic diseases averaged 3·5 per 1000 in the twenty towns, and ranged from 0·4 and 0·6 in Leicester and Norwich, to 6·4 in Nottingham, 7·2 in Brighton, and 13·8 in Hull. Scarlet fever was again the most fatal zymotic disease in the twenty towns, and showed the largest proportional fatality in Hull, Brighton, and Nottingham; 36 more fatal cases were recorded in Hull, in which town no fewer than 429 have occurred since the beginning of July last. The 34 deaths referred to diphtheria in the twenty towns included 23 in London and 5 in Portsmouth. The deaths referred to "fever" showed the largest proportional excess in Brighton, Sunderland, Portsmouth, and Hull. Small-pox caused 29 more deaths in London and its suburban districts, and one in Oldham, whereas no fatal case was recorded in any of the eighteen other provincial towns. The number of small-pox patients in the metropolitan asylum hospitals, which had been 453 on each of the two preceding Saturdays, declined to 440 at the end of last week; these included 137 in the *Atlas* hospital ship, and 70 in the Convalescent Hospital at Darenth. The 76 new cases of small-pox admitted to these hospitals last week corresponded with the number in the previous week. The deaths referred to diseases of the respiratory organs in London, which had steadily increased in the ten preceding weeks from 115 to 375, further rose last week to 443, which, however, only exceeded the corrected average weekly number by 4. The causes of 74, or 2·3 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths, which did not exceed 1·0 per cent. in London, averaged 3·5 per cent. in the nineteen provincial towns. All the causes of death were duly certified in Portsmouth Norwich, Plymouth, Leicester, and Nottingham, whereas the proportions of uncertified deaths were largest in Sheffield, Bradford, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 21·6 and 21·1 per 1000 in the two preceding weeks, rose to 22·9 last week, and exceeded by 0·5 the average rate in the twenty large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 95 and 87 in the two previous weeks, further declined again to 81 last week; of these, 22 resulted from scarlet fever, 18 from diarrhœa, 16 from diphtheria, 13 from "fever," 6 from measles, 6 from whooping-cough, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·5 per 1000 in the eight towns, and was identical with the average rate from the same diseases in the twenty English towns. The 22 deaths from scarlet fever showed an increase of 6 upon the number in the previous week. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which had been 99 and 134 in the two preceding weeks, were 128 last week, and were equal to an annual rate of 5·5 per 1000, almost corresponding with the rate from the same causes in London.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had steadily increased from 18·2 to 30·5 in the four preceding weeks, declined again last week to 21·3. The deaths in the city last week showed a decline of 61 from the number in the previous week; 5 resulted from measles, 5 from "fever," 1 from scarlet fever, 1 from diarrhœa, and not one either from small-pox, diphtheria, or whooping-cough. The annual death-rate from these zymotic diseases was equal to 1·8 per 1000, while the rate from the same diseases was 3·2 in London and 3·9 in Edinburgh. The 5 fatal cases of measles showed a further increase upon the recent weekly numbers; while the 5 deaths referred to "fever" were within one of the number returned in the previous week, and showed a death-rate considerably exceeding the average rate in the twenty English towns. The deaths both of infants and of elderly persons showed a decline.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

QUARANTINE AT THE ANTIPODES.

We have hitherto, when producing information and illustrations of the extravagances and follies of quarantine, usually had recourse to the practices followed by the maritime Powers of Europe, and more particularly the maritime Powers of the Levant. It is now necessary to extend our field of vision, and in respect to questions of quarantine we are compelled to concede the palm of folly to an English-speaking community, occupying a British colony at the Antipodes. Sydney has had an alarm, or, to use the approved phrase, a "scare" of small-pox. Particulars are still wanting as to the beginning of the scare and the circumstances under which small-pox was introduced into the colony. The story commences at a period when the disease had got a certain hold upon the people, and when the colonial authorities appear to have determined that the one thing to be done in view of limitation was the stringent application of quarantine. Sydney has a quarantine ground, but no provision seemingly has been made for its occupation, neither proper accommodation for the sick nor for the healthy. It is true that a hospital ship for small-pox cases has been anchored off the ground, but for the people sent on shore only some temporary shelter with a few tents have been erected; the sick are mingled with the healthy, but neither furniture for the buildings and tents, nor food, nurses, or medicines for the sick; neither provisions and cooking materials or firing for the healthy, nor any of the arrangements for a lazaretto are forthcoming, but in lieu of all these—superfluities we suppose they are regarded—there is a "quarantine superintendent"! So much for the essentials of quarantine. The practice is not less eccentric. A medical man who visits a small-pox patient is himself liable to be quarantined. Hence at this risk medical men forego attending small-pox cases, and the patients are left to the charge of irregular practitioners and quacks, and have to take their chance among them. Again, a house which has a case of small-pox in it, or is suspected to have a case, is quarantined with every living being contained in it. The healthy are thus shut up with the sick, or in the infected house, without chance of escape from the dangers of infection. The scenes of the great plague in London would thus have been enacted again, and whole families cut off, but for a happy chance, which probably has arisen out of the quarantining of medical men, and happily shows how at times one folly may neutralise another. Under the circumstances it is pleasing to note that this frenzy of unintelligent quarantining reacts on itself. It seems probable that the greater number of houses quarantined for small-pox have never had the disease in them. Every ailment seems to be accredited to small-pox. If a person but sneezes, he becomes a "suspect," and is forthwith "quarantined" along with his family. Thus a severe catarrh is quarantined with the greatest gravity, so also cases of impetigo and eczema and other trivial skin affections. A paroxysm of quarantine has, indeed, broken out, which has swept away equally the common rules of quarantine and the rules of common sense. Vaccination, as a protection against small-pox, comes in for only a small share of attention. The Colonial Government has, however, woke to a sense that all is not as it should be in these matters, and has appointed a commission of inquiry as to the management of the quarantine station during the "scare," and the quarantine superintendent has been suspended.

CHOLERA AT MECCA.

News from Alexandria on the 11th inst. states, on information from Jeddah dated the 6th, that the mortality from cholera at Mecca had reached 300; whilst intelligence received at Constantinople on the 16th gives the number of deaths daily as 500. Steamers will no longer bring back pilgrims.

Enteric fever is reported to be very prevalent at Clayton-le-Moors and its vicinity. The water from Dean Clough having been suspected, samples have been sent for analysis to the county analyst.

THE SERVICES.

INDIAN MEDICAL DEPARTMENT.

The latest intelligence from Calcutta on the subject of the Indian Medical Service is that the scheme for its amalgamation with the Army Medical Department has undergone some modification. The correspondent of *The Times* says: "It is now proposed to form an Indian Medical Staff Corps to be recruited partly from the Army Medical Department and partly by competition among the students of certain British and Irish medical schools." We are disposed to think that this statement is merely the result of a misapprehension of the mode in which officers are, or we should rather say may be, admitted at present, and that the amalgamation of the two services will be carried out. It is stated that the chief administrative officer of the proposed corps will be styled Director-General of the Medical Department in India, and that it is expected the first appointment to this post will be conferred on Surgeon General Cunningham of the Indian Medical Department. It appears somewhat premature to make these announcements before the scheme has been under the consideration of the India Office, and it is in all likelihood merely put forward as a feeler. We are satisfied that, whatever scheme may be finally settled, the anomaly of a double service will be abolished, and that in future there will be only one corps of medical officers for military service in India. It may probably be deemed advisable also to organise a civil medical service distinct from, but when required available to supplement, that of the army.

VOLUNTEERS.—Artillery—1st Devonshire Corps: Surgeon John Steele Perkins is granted the honorary rank of Surgeon-Major; dated 1st July, 1881. 1st Glamorganshire Corps: Surgeon Charles Pegge is granted the honorary rank of Surgeon-Major; dated 1st July, 1881. Rifle—1st Argyll (Argyllshire Highland) Corps: Surgeon John Reid is granted the honorary rank of Surgeon-Major; dated 1st July, 1881.

YEOMANRY CAVALRY. — 1st Dumbartonshire Corps: Acting Surgeon Donald Patrick Stewart resigns his appointment; dated 16th Nov. 1881. 3rd Hampshire Corps: Surgeon John Robert Kealey, M.D., is granted the honorary rank of Surgeon-Major; dated 1st July, 1881. 2nd Lincolnshire Corps: The undermentioned Honorary Assistant-Surgeons resign their commissions:—William Newman, M.D.; dated 16th November, 1881. Francis Snaith; dated 16th November, 1881.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon Robert Bedford has been allowed to withdraw from Her Majesty's Naval Service with a gratuity.

The following appointments have been made:—Surgeon William J. Christie, M.B., to the *Duke of Wellington*, additional, for temporary service at Haslar Hospital; Staff Surgeon Frederick M'Clement, M.D., to the *Eclipse*, vice M'Dermot.

THE BIRMINGHAM EYE HOSPITAL.—The committee of this institution have resolved, by an overwhelming majority, to remove the hospital from its present situation, and to build elsewhere. The new hospital is to combine all the latest and best appliances which modern science can suggest, at a cost of £17,000.

PHARMACOLOGY AND THERAPEUTICS.

VALDIVINE.

VALDIVINE is an active principle obtained from the root of a Columbian tree, the Picrolemna valdividia. According to Dujardin-Beaumetz it possesses highly toxic properties, two milligrammes, hypodermically, sufficing to kill a rabbit, and six milligrammes were fatal to a dog of medium size. It has a peculiarly slow action. Even if the dose is three or four times the fatal one, death does not occur for five or six hours. In dogs violent and continuous vomiting is produced. Rabbits do not vomit, but four or five hours after the injection they sink into a state of profound torpor, persisting until death, which occurs slowly and without convulsions. In man four milligrammes given by the mouth cause vomiting in half an hour. The action is slower and less constant if given hypodermically. It has been employed in hydrophobia and in snake-bites (for which the nut has been recommended), but without hindering the fatal termination. Nevertheless, at Alford, M. Nocard has found that four milligrammes administered daily suppress the paroxysms in rabid dogs. The animals remain insensible to all that passes around them, and die without convulsions. The drug has also been tried in intermittent fevers, on which it appears to have no action. It is not poisonous to frogs.

CEDRINE.

The same experimenter has investigated the action of the active principle of the fruit of Simaba cedron, and has found it far less toxic than valdivine. A centigramme is necessary to cause the death of a rabbit. In man four centigrammes given hypodermically cause giddiness. It appears to have decided febrifuge properties, although its action is slower and less certain than quinine.

SPARTEINE.

From the Spartium scoparium, a leguminous plant growing in France, Stenhouse in 1851 obtained two principles—scoparine, a yellow crystalline substance, believed to have a diuretic action, and sparteine, a volatile liquid alkaloid, which has been lately studied by De Rymon. Its chemical composition is nearly the same as conia. It causes first general tremor, incoördination of movement, and convulsions, which are alternately tonic and clonic. Later on there is a period of depression and enfeeblement. The pupils become dilated, breathing is embarrassed, the cardiac pulsations, at first accelerated, are afterwards retarded and arrested. Reflex irritability is at first active and then abolished. The excitability of the peripheral nerves is maintained up to the last, so that the symptoms are solely due to the action of the poison upon the nerve centres.

POISONING BY PYROGALLIC ACID.

Neiser has recorded the case of a man, aged thirty-four, affected with psoriasis, who was rubbed on one half of the body with an ointment of pyrogallic acid, and on the other with chrysophanic acid. An hour afterwards he was seized with rigors, followed by vomiting, diarrhœa, and giddiness. The next day he was in a state of alarming collapse, with a temperature of 104°, and passed urine black from dissolved hæmoglobin. He died on the fourth day. The blood was bluish and diffluent, and the kidneys black and intensely congested. It is presumed that there was a destruction of the red corpuscles by the pyrogallic acid.

TAYUYA: AN ANTISYPHILITIC.

Tayuya, the native name of a Brazilian plant, the Dermophilla pendatica, is employed by the inhabitants of South America as a remedy for syphilis, and has been introduced into Italy. The root is the most active part of the plant, and from it a strong tincture is prepared, about fifteen minims of which may be injected daily subcutaneously, or it may be given internally in a diluted form. On analysis the tincture is found to contain oxalates of lime and magnesia, iron, a resin, and an uncrystallisable substance, supposed to be an alkaloid. The physiological effects of small doses resemble those of aloes; in large doses it not only purges, but causes also diaphoresis and salivation. According to the *Gazeta Medica de Bahia* clinical experi-

ments are said to have shown that it is both an effectual (?) and a harmless remedy for syphilis.

BERGENIN.

An investigation into the physiological and therapeutical properties of the various species of saxifrage, especially S. sibirica, cardifolia, and crassifolia, has been carried on for some years by Drs. Garreau and Machelart. In the stems of these plants there is, besides tannin, a hitherto unknown body, which it is proposed to call "bergenin." It is obtained by first extracting the tannin by means of ether, and then treating the plant with pure alcohol. Bergenin is a whitish translucent substance, having the bitter taste of caffein and quinine. It crystallises from alcohol in tetrahedral crystals; but from a watery solution, in prisms. It has no action on polarised light. At the temperature of 140° C. it loses an atom of water, and runs into a colourless or amber-coloured fluid, which forms, when it cools, a translucent mass, and this gradually, by contact with the air, reassumes its lost atom of water, and is transformed into tetrahedrons. At the temperature of 300° C. it is decomposed into a variety of carbohydrates. It has a slightly acid reaction, and by dilute nitric acid it is transformed into oxalic acid. It forms soluble salts with potash, lime, baryta, and magnesia. Analysis shows that it has the formula $C_8H_3O_3HO$. It is said to be a valuable remedial agent, having a stimulant and tonic action on the nervous system. It is placed, therapeutically, between salicylic acid and quinine. The parts of the plant which contain it possess the same properties, with, in addition, an astringent action, from the large quantity of tannin they contain.

HYOSCIN.

Landeberg has prepared from amorphous hyoscyamin a pure alkaloid which he calls hyoscin, which forms a crystalline compound with hydriodic acid, and an amorphous compound with hydrochloric acid. The therapeutic value of these compounds has been tested by Edlefsen and Illing at Kiel. They conclude that both salts are active and convenient agents. The iodine compound is the more powerful, perhaps because, being crystalline, it is purer. Their action resembles that of atropine, but their value, in some diseases, is greater. Larger doses can be given without producing disturbance of vision, or dryness in the throat, and the sedative action is greater. Dryness in the throat is produced by a milligramme and a half of the iodine salt. Toxic symptoms (with three milligrammes) were very similar to those caused by atropine—delirium, disturbed vision, dryness in the throat, and uncertainty of gait. Four times the dose of the chlorine compound did not cause these symptoms. In whooping-cough benefit was obtained in half the cases. It was used in six cases of asthma, and did good in all. In two cases of severe enteralgia the pain was at once relieved by it. In a case of epilepsy the number of attacks was reduced.

HELLEBORE.

The dried roots of green and black hellebore are similar in appearance, and, according to Professor Herlant of Brussels, who has investigated the characters and properties of authentic specimens, the only distinctions between them are the redder tint of the black hellebore root, and the greater development of the circular fibres around the pith, the oily drops in the cortex of the green hellebore root. Analysis shows no difference in their active principle, except that it is rather more abundant with green hellebore. With both, certain inert roots may easily be confounded, especially those of Adonis vernalis, Polygala senega, and Actea spicata; young roots of the latter resemble perfectly the roots of hellebore. The only effective distinction is by the chemical production of helleboretine, $C_{14}H_{20}O_5$, which is obtained by the decomposition of a glucoside contained in the root by boiling with dilute sulphuric or hydrochloric acid. The blue-violet colour of the resulting body is distinctive. This reaction is equally serviceable in toxicological as in pharmacological researches.

THE Governors of the Glamorgan and Monmouth Infirmary have resolved to proceed at once with the erection of a new building, which is to cost £23,000. The site of the building is the gift of the Marquis of Bute, and sums of £1000 have been contributed towards the cost of the proposed work by the Marquis, Lord Windsor, Lord Aberdare, Lord Tredegar, Mr. J. H. Insole, and Mr. James Ware. The architects are Messrs. Oames, Seward, and Thomas, Cardiff.

THE VIVISECTION PROSECUTION.

THE QUEEN *v.* FERRIER.

THE hearing of the summons taken out by the Society for the Protection of Animals from Vivisection against Dr. Ferrier took place before Sir James Ingham, at Bow-street, on Thursday afternoon, Nov. 17th. Mr. Waddy, Q.C., Mr. Besley, and Mr. Coleridge appeared on behalf of the prosecution; Mr. Gully, Q.C., and Mr. Houghton defended. There was a large attendance of the leading members of the profession.

Mr. WADDY, Q.C., said that the Statute which Dr. Ferrier was accused of having violated was the 39 and 40 Vic., chap. 77. That Act provided that no experiments should be performed on living animals except under certain restrictions, one of which was that a licence should be previously obtained. He was not going to say that the initial operation was performed by Dr. Ferrier, but the animals were kept alive by him in contravention of the Act.

Sir JAMES INGHAM said the Act contemplated two things, the experiment and the object of it. He wished the learned counsel to state his view of the word "experiment," because it appeared that the surgical operation was performed more than six months before the summons was taken out.

Mr. WADDY said there was no benefit to science whatever obtained by Dr. Ferrier while the monkey was under the influence of anæsthetics. The experiment was not the taking away of the brain and looking at the animal, but testing the results afterwards. The question, then, was whether the experiment was done and continued in violation of the restrictions imposed by law. The contention of the prosecution was that Dr. Ferrier ought to have got a certificate. There was no grievance in the matter. If the defendant was carrying on experiments, it would be a monstrous thing for the prosecutors to seize some little man and let a great man like Dr. Ferrier pass. Even supposing that the first injury was done by the hand of another person in France, and months afterwards a professional gentleman in this country purchased the injured animal, and brought it to this country to make experiments upon, could it be said that that was not an infraction of the law? The learned counsel then described what took place at the International Medical Congress, and stated that the further testing of the monkeys and the dog was adjourned to King's College.

Sir JAS. INGHAM: Did they then perform an experiment causing pain?

Mr. WADDY said he was not prepared to say they did at that time; but that was not the question, because the experiment which caused pain was one continuing thing. His contention was not a medical one. He simply raised a very short and narrow point—that Dr. Ferrier performed these experiments without first getting a certificate.

Mr. CHAS. SMART ROY (one of the secretaries of the Physiological Section of the International Medical Congress), examined by Mr. Coleridge: I was present at the meeting of the Section on Aug. 4th. The printed report in the *British Medical Journal* contains many errors. It is not wholly in accordance with my memory. Dr. Foster was in the chair. Dr. Goltz read a paper describing his experiments, part of which were to determine what degree of truth attached to the assertion of Flourens that large parts of the brain of living animals might be removed without any apparent loss of cerebral function resulting. Professor Ferrier spoke on the same subject. He differed in certain points from Professor Goltz, and described experiments which he had performed, or assisted in performing, in which portions of the cerebral cortex had been removed from the brain of a monkey and paralysis ensued in certain muscles or limbs of the animal. I think he also stated that a dog and two monkeys on whom experiments had been performed were to be seen at King's College. Subsequently between seventy and a hundred gentlemen went to the College to see them. Among those present were Dr. Michael Foster, Professor Yeo, Professor Huxley, and Mr. Lee, but the majority were foreigners. The servant produced the animals, and Dr. Ferrier described what had been done to them. I do not think he touched the monkeys at all. One was lame, and the deafness of the other was shown by a pistol being fired off close to its ear without its manifesting any knowledge of the report.

Dr. MICHAEL FOSTER, examined by Mr. Besley, gave an account of Dr. Ferrier's statements at the International Congress with regard to experiments on certain monkeys carried out with antiseptic precautions. He said that in former years he had removed certain parts from the surface of the brain of monkeys; that in consequence of the removal certain definite conditions of the organs took place; and that those experiments had been corroborated by other experiments by Professor Yeo according to the antiseptic system. There was no public announcement at the Congress that the animals would be exhibited, but witness and others present considered it desirable, and special arrangements were made for the purpose. Dr. Carpenter, Professor Burdon Sanderson, Professor Rutherford, and other eminent gentlemen were present. It was typically a physiological meeting. The first monkey brought in seemed to be perfectly natural, but it showed no sign of hearing when a pistol was fired behind its head. The other monkey was evidently lame. The animal was pinched, to show that its sensations were unaffected. One or two gentlemen spoke on the subject, and then the meeting terminated. Afterwards it was arranged that the dog and the paralysed monkey should be killed, and the brains examined by an independent committee, to ascertain what was the exact nature of the injury.

Sir J. INGHAM: What is the specific experiment calculated to produce pain which you impute to Professor Ferrier? It is proved now that the two monkeys had been operated upon by Professor Yeo.

Mr. WADDY said it was a continued experiment, and Dr. Ferrier took a leading part in it.

Sir J. INGHAM: I confess I think there must be some participation in the original act in order to make it an act of cruelty within the meaning of the Act of Parliament; and there is not only no proof that Professor Ferrier had anything to do with the original act, but the proof, so far as it goes, is to the contrary. If you have nothing more to adduce I must dismiss this summons. You may, if you think proper, take a case upon the point, because it is one of very great interest, no doubt. It is very important, I am sure, to magistrates that some clear definition of the word "experiment" should be laid down by superior authority.

After some discussion,

Dr. WAKLEY (Editor of THE LANCET) was called, and at the request of Mr. Waddy produced the manuscript of the report that appeared in that journal.

Mr. WADDY: Who wrote that report?

Dr. WAKLEY: I have the permission of the gentleman to give his name—Professor Arthur Gamgee, of Owens College, Manchester.

Mr. WADDY asked for an adjournment in order that the evidence of Professor Gamgee might be taken, but finally withdrew the application, and the summons was dismissed.

Mr. GULLY: As Professor Yeo has been mentioned, and as it has been stated that this was an operation conducted by him, I wish to state that he conducted it in strict accordance with the law, using anæsthetics, having a licence for the operation, and having a certificate for keeping the animals alive during the period they were kept alive.

Correspondence.

"Audi alteram partem."

BOUILLAUD AND APHASIA.

To the Editor of THE LANCET.

SIR,—In your notice of Bouillaud, the distinguished French physician, I see no mention of his work on the Brain, and especially his assertion that speech was connected with the anterior lobes. I have always regarded Bouillaud as the first who enunciated this doctrine. His work was written in 1825, and in this he says: "From the observations which I have collected, and from a great number of those which I have read in authors, I believe myself able to declare that it is in the anterior lobes of the brain that the ruling principle of speech resides (*que réside le principe législateur de parole*). In looking through their works I see with extreme satisfaction that their observations accord perfectly with my own, and I am only astonished that they did not long ago make the easy discovery which is now occupying our attention. I have read attentively the observations of those authors, sometimes beginning with the symptoms and sometimes with the alterations in the brain found after death. Whenever amongst the symptoms there was mention of loss of speech I concluded there would be an alteration in the anterior lobes, and when, on the contrary, by a kind of neuter proof I found in the description of the pathological changes a disorganisation of these same lobes I said on consulting the symptoms there would be loss of speech. I assure you that I have never yet been deceived in this kind of diagnosis." Again, in speaking of "la perte de la mémoire des noms," he says, "Now, since on the one hand the loss of speech and of the memory of words is the inevitable consequence of disorganisation of the anterior part of the brain, and since on the other hand this symptom does not accompany alterations of other cerebral convolutions, have we not a right to conclude that the anterior part of the brain is the seat of the organ of articulate language?"

It is remarkable that although in his illustrative cases it is mentioned that one side only of the portal lobes was damaged, Bouillaud makes no reference to it. The localisation to the left side was made out by Dax and Broca, and confirmed by Hughlings-Jackson. It may be remembered that Gall and the phrenologists had before this time asserted that the seat of language lay in the anterior lobes, and supported their doctrine by cases of accident and disease.

I am, Sir, yours obediently,

Grosvenor-st., Nov. 12th, 1881. SAMUEL WILKS.

A RARE TERMINATION OF CANCER OF THE ŒSOPHAGUS.

To the Editor of THE LANCET.

SIR,—As illustrating a rare mode of termination of œsophageal cancer, and as bearing on some of the points raised at the last meeting of the Clinical Society with regard to surgical interference in such cases, I may be permitted to give the following brief details of a post-mortem examination I was fortunate enough to see at the Pathological Institute at Berlin in September last. The case was that of a man about fifty years of age, who was suffering from a stricture of the œsophagus of some duration. He was, moreover, phthisical, and had already given indications of commencing pulmonary gangrene, when he was suddenly attacked with profuse hæmoptysis which carried him off.

The examination was made by Dr. Grawitz on Sept. 19th. The bronchi of the right lung were found to be filled with blood. In the anterior part of the lower lobe, near the root of this lung, was a gangrenous cavity the size of a walnut, surrounded by a zone of hepatisation, and some scattered greyish broncho-pneumonic foci. At the apex of the left lung there was an old smoothly-lined vomica, and dispersed throughout the organ were greyish, pigmented, and caseous granulations, as well as some irregular caseous masses. Both lungs were highly engorged. The œsophagus was adherent to the aorta and trachea opposite to the bifurcation of the latter; and it was here the seat of a large irregularly excavated cancerous (probably epitheliomatous) ulcer. The cavity of the ulcer was filled with blood-clot, as were also the segment of the gullet below and the stomach. On turning out the clot the ulceration was found to have perforated the right side of the trachea at its bifurcation, and the descending aorta about the same level. Above the cancer the gullet was much dilated, whilst below it some secondary nodules occurred in the mucous membrane of the œsophagus, and also in the mucous membrane of the stomach.

The course of events was probably as follows: The cancer of the œsophagus in its middle portion had first ulcerated into the trachea at the point of departure of the right bronchus; hence the supervention of pulmonary gangrene, a by no means infrequent sequence in œsophageal cancer at this region. The perforation into the aorta resulted in the attack of hæmoptysis and hæmorrhage into the stomach, the blood finding its way into the right lung through the previously established fistula. It is this ulceration of the aorta that lends importance to the case, and emphasises the recognised need for the caution with which the introduction of instruments should be used. The supervention of cancer

in a phthisical subject, and the occurrence of secondary growths by direct infection of the mucous membrane beyond the cancer, are also points of pathological interest.

I am, Sir, yours truly,

Weymouth-street, Nov. 14th, 1881. SIDNEY COUPLAND.

PROFESSOR VIRCHOW'S TESTIMONIAL.

To the Editor of THE LANCET.

SIR,—Permit me to acknowledge the receipt of the following additional subscriptions in respect of the above testimonial, and to say that, though I have already transmitted to Professor Küster, of Berlin, the sum of £88 16s., in order that it may reach him before the 19th, I shall still be happy to receive subscriptions.

Sir Thos. Watson, Bart.	£3	3	0
T. B. Curling, Esq.	1	1	0
Dr. Pye-Smith	1	1	0
Dr. Wilson Fox	2	2	0
Dr. Swanzy	1	1	0
Dr. Vacher	2	2	0
Dr. T. Edmondston Charles	5	5	0
John Simon, Esq....	1	1	0
Dr. F. Chance	2	2	0
Spencer Wells, Esq.	2	2	0
Dr. C. T. Williams	1	1	0
Dr. W. H. Allchin	1	1	0
Dr. Grigg	1	1	0
Dr. E. B. Baxter	1	1	0
Joseph Lister, Esq.	2	2	0
Dr. M. Watson	2	2	0
Dr. A. R. Simpson	5	0	0
From Manchester (per Dr. Dreschfeld)	17	17	0
Dr. A. B. Shepherd	1	1	0
Dr. Cheadle	1	1	0
Dr. Broadbent	1	1	0
Dr. Hermann Weber	3	3	0

I am, Sir, your obedient servant,

Old Burlington-street, Nov. 17th, 1881. J. S. BRISTOWE.

HYPERPYREXIA.

To the Editor of THE LANCET.

SIR,—In the case published in your number of November 5th (as read before the Clinical Society by Dr. Mahomed), it appears to me that the conclusions drawn are far too positive, and no account is taken by the author of the arguments on the other side. As medical ward-clerk I had the case directly under my observation for three months, from December 1st, 1879, to February 28th, 1880, and although I was extremely sceptical with regard to these temperatures at first, I was compelled to come to the conclusion that they were genuine before my appointment terminated. I watched the case most carefully, and although she was an extremely hyperæsthetic girl, I do not think she was capable of producing fraudulent temperatures. During these three months the temperature averaged about 101° in the morning, and 102° to 103° in the evening, being regularly taken every day; many times it rose to 104°, 105°, and 106°, and these were generally in the evening. On two occasions I took evening temperatures of 109° and 111° (each time it was just after she had had a short sleep) in the left axilla, at which spot I had always had my highest records. I was sitting on the bed holding the thermometer, with my fingers in the axilla and with my other hand holding the patient's arm, so that I know there was not the slightest amount of friction against the thermometer. I may here mention that the left side was the one on which the most mischief was found at the autopsy.

It is very interesting, as far as my experience goes, that her highest temperatures were always recorded in the left axilla, and also (which is a most important fact, and one which Dr. Mahomed denies), I noticed that her skin at that spot was burning hot, so as to be quite unpleasant to touch, and different to the rest of her body. Now, is it not surely more scientific to admit that these temperatures did not exist, than to ridicule them because they cannot be explained?

There is another fact, too, which Dr. Mahomed quite overlooks, and that is, the patient herself would be most miserable and depressed if she knew her temperature was high, because she feared some further experiments might be made on her; for she disliked most intensely being placed in a private room, and having her temperature taken innumerable times during the day. I may add that my experience is quite confirmed by a previous medical ward-clerk and also by the house-physician who was on duty when her temperature was first noticed to be so abnormally high. Apologising for troubling you,

I am, Sir, your obedient servant,

W. H. C. NEWNHAM,

Guy's Hospital, Nov. 14th, 1881. B.A. (Cantab.), M.R.C.S.

A NEW FRAME FOR HOLDING SPHERICAL AND CYLINDRICAL LENSES DURING THE DETERMINATION AND CORRECTION OF ERRORS OF REFRACTION.

To the Editor of THE LANCET.

SIR,—Having in common with other ophthalmic surgeons experienced great inconvenience from the imperfections of all contrivances hitherto brought out for the above purpose, I have watched the development of Mr. Makins' instrument with much interest, and having now used it for some time I feel justified in saying that it meets all requirements, and I venture to address to you this letter describing it in the hope that others will avail themselves of its use. Up to this time every new apparatus for this purpose has surpassed its predecessors either in complexity or in weight, and without fulfilling in any way the chief indications—viz., the possibility of altering the lateral distances of the centres, and likewise compensating for the vertical variations due to the form of the patient's nose, easy rotation of cylinders either by patient or surgeon, space for the interposition of prisms, lightness, and perfect fixation on the head of the patient. The instrument is entirely the invention of Mr. Makins of Messrs. R. and J. Beck's, 68, Cornhill, and the only point which originated with me was the introduction of certain vulcanite "ring stops" to prevent shaking when lenses of low refractive power are used. Both the vertical and horizontal movements are provided for by the simplest contrivance, but requiring much care in making, and the most recent part of the instrument consists in having the limb that goes behind the ear bent so as to hook firmly around it, and the length of the limb adjustable to the exact degree of tension required by means of a screw. This secures the apparatus so firmly that the patient can keep the glasses on easily for any length of time, and the glasses can be changed as quickly as can be desired, for they simply drop into their places. For correcting errors of refraction by the ophthalmoscope where for any reason the ordinary direct method is undesirable it is simply invaluable. Scarcely a day passes that I do not use this contrivance in determining the errors of young children.

I am, Sir, yours, &c.,

Finsbury-circus, E.C. JAMES E. ADAMS.

THE COMMISSIONERS IN LUNACY AND POOR-LAW MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—Would you kindly insert the enclosed correspondence in this week's LANCET, and oblige,

Yours truly,

J. WICKHAM BARNES.

3, Bolt-court, Fleet-street, Nov. 15th, 1881.

3, Bolt-court, Fleet-street, Nov. 4th, 1881.

MY LORD,—We are directed by the Council of the Poor-law Medical Officers' Association to write and complain of certain statements which appear in page 121 of the late report of the Commissioners in Lunacy, which seriously reflect on the capacity of Poor-law medical officers as certifiers of lunatics. The Council venture to remind your lordship that the great bulk of the certification of lunatics throughout the country must of necessity pass through the hands of Poor-law medical officers; most of whom, though holding badly paid offices, are highly educated and honourable men. Being fully cognisant of the very large services you have at all times rendered to the cause of the sick poor, and the kindly manner in which you have at various times

spoken of the arduous labours of Poor-law medical officers, the Council trust that you will, on reflection, see fit to modify the harsh expressions to which you have given countenance by your signature, and will take an early opportunity of removing the impression caused by the report, of which they feel they ought to complain.

We have the honour to be, my Lord,

Your obedient servants,

JOSEPH ROGERS, M.D.,
Chairman of Council.
J. WICKHAM BARNES, F.R.C.S.,
Hon. Sec.

The Right Honourable the Earl of Shaftesbury, K.G.

St. Giles's House, Cranborne, Salisbury, Nov. 8th, 1881.

SIR,—It was not until this morning that I had the honour to receive your letter. I reply immediately, without waiting to consult my colleagues; for I am sure that I know their sentiments as well as I know my own. They will concur, I am sure, with my expression of regret that a passage in our last report should have given pain to so valuable and deserving a body of men as the Poor-law medical officers. I have not the document at hand, so I cannot refer to the precise language, but I have a very distinct recollection that the statement was made, not in disparagement of the merits of yourself and your colleagues, but to meet an assertion (made on authority to which I need not further allude) that the signature of the Poor-law medical officer, or some other official, should be absolutely and indispensably necessary to every certificate for the admission of patients into houses licensed for the care and treatment of the insane. It was against the imposition of such a necessity by Act of Parliament at all times, in all localities, and in all circumstances, that our remarks were directed.

It would, indeed, grieve me to become a party to any injurious reflections on the Poor-law medical officers collectively. Both in the present day and in former days I have had, and I still have, abundant evidence of their skill, diligence, and humanity.

I am, Sir, your obedient servant,

J. Wickham Barnes, Esq., F.R.C.S. SHAFTESBURY.

VIENNA.

(From our own Correspondent.)

SOME cases recently operated on by Professor Albert have excited a good deal of interest. Struck by the fact that many subjects of infantile paralysis are condemned to the life-long use of more or less complicated apparatus to compensate for the loss of rigidity in the lower limbs, and that the poor cannot get such instruments, he has attempted to increase the use of the legs by operation. He excises the knee and ankle joints, and thus obtains bony anchylosis between the femur and tibia, and tibia, fibula, and astragalus. The rigid lower limbs in walking are swung forward by the adductor and great flexor muscles of the hip joint, which generally retain or recover their power. This treatment has already been carried out in four cases, and a fifth is now preparing for operation.

Professor Billroth is not daunted by the ill success hitherto attending his operations of excision of parts of the stomach. As most of the patients operated on died because the food collected in the fundus of the stomach, which was greatly dilated, Billroth intends for the future to establish a direct communication between this distended fundus and the lower end of the duodenum, the opening being guarded with a valve to prevent regurgitation of bile and chyme. The only patient on whom this has been attempted died ten days afterwards. But Billroth hopes by improving his method of operating to render the operation practicable and successful.

Dr. Mikulicz has excited great interest at the two last meetings of the R.T. Society of Physicians of Vienna, by the exhibition and demonstration of two new endoscopic instruments for exploring the œsophagus and stomach. The gastroscope and œsophagoscope, manufactured by Leiter, are illuminated by the electric light, and consist of a tube containing the wire conducting the current to a ball of platinum which is rendered incandescent by electricity; a second tube conducting a stream of cold water; an air tube, and the necessary optical appliances. The œsophagoscope is straight, the gastroscope is curved at its lower third at an angle of 130°. To get a view of the stomach, that organ is inflated with air by a small air-ball attached to the apparatus. It is stated that by this means a distinct view of the fundus and pyloric end of the stomach can be obtained. During application the patient must lie on his side, and a dose of morphia is required, at any rate at first, to allay irritation. Dr. Mikulicz demonstrated the application of the œsophagoscope on a case of cancer of the œsophagus close to the cardia, and in a case of aortic aneurism in which the pulsations of the tumour pressing upon the œsophagus were rendered quite distinct. Dr. Störck acknowledged publicly that this was decidedly superior to the œsophagoscope recently introduced by himself.

Professor Neumann has been appointed to succeed Professor Sigmund, and has commenced a course of lectures on syphilis. The entries for the medical classes are very large, and show a marked increase over recent years.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the last meeting of the Council the following Member was elected a Fellow of the College:—

Haddock, Edward, L.S.A., Biddulph, near Congleton; diploma of Membership dated Oct. 21st, 1842.

The following gentlemen, having passed the required examination for the Diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on Monday last:—

Castaneda y Triana, Tiburcio Perez, M.D. Madrid, Habana.
Conway, John, M.B. Glas., Glasgow.
Fligg, William, M.B. Ed., Edinburgh.
Fryer, John, L.S.A., Dewsbury.
Greaves, Thomas, M.D. New York, Virginia.
Hurtley, William Maw, L.S.A., Leeds.
Karanjia, Merwanji Dhunjibhai, L.S.A., Bombay.
Lewers, Thomas Ross, M.B. Melbourne, Melbourne.
Lisle, William Henry, M.B. Dub., Daventry.
Ochiltree, Edw. Graham, M.B. Glas., Victoria, Australia.
Richmond, James, Preston, Lancashire.
Riordan, Daniel, M.D. Queen's Univ. Irel., Llandore, S. Wales.
Summerhill, Thomas Henry, Wolverhampton.
Sykes, Matthew Carrington, L.R.C.P. Lond., Barnsley.
Taylor, B. R. Archer, L.S.A., Botesdale, Suffolk.
Viljoen, Anthony Gysbert, M.B. Ed., Cape of Good Hope.

The following gentlemen were admitted Members on Tuesday last:—

Adeney, Edwin Leonard, Reigate.
Archer, Henry Edward, Anerley.
Chittenden, Thomas Hillier, Maidstone.
Coles, William James, L.S.A., Croydon.
Daunt, Elliot, Launceston.
Evans, John Durance, L.R.C.P. Ed., Llandovery.
Gordon, Bryce, Bombay.
Hart, William Hamilton, Streatham.
Hingston, Richard, L.S.A., Liskeard.
Marshall, John Grissell, L.S.A., Wallingford.
Martyn, Ernest, M.B. Aberd., Southall.
Rayner, Hugh, Liverpool.
Shaw, Lauriston Elgie, Hastings.
Square, James Elliot, Plymouth.
Williams, Robert, Liverpool.

The following gentlemen were admitted Members on Wednesday last:—

Cleaver, William Fidler, Stamford-street.
Cowan, Richard Hamilton, L.S.A., Southsea, Hants.
Bertram, Benjamin, Cape Colony.
Birkett, Ernest, Ramsgate.
Deane, Herbert Edward, L.S.A., Sutherland-gardens.
Edwards, T. R. Charles, Gloucester-gardens.
Fox, George, Huddersfield.
Garrard, C. R. Orish, Tuckenhall.
Gotch, Francis, Bristol.
Greenwood, George, Dalston.
Harrison, James, L.R.C.P. Ed., Whalley Range, Manchester.
Harvey, Eldon, L.R.C.P. Ed., Bermuda.
Husband, J. C. Radcliffe, Ripon.
Kershaw, Hugh, Brighouse.
Pitt, G. Newton, Sutton.
Style, R. George, Chichester.
Thomson, St. Clair, St. Mark's Crescent.
Williams, H. Egerton, Abertillery.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 10th inst.:—

Ernest H. Goode, University College; Tom Scutt, St. Thomas's Hospital; William Pash, London Hospital; Thomas H. Miller, Guy's Hospital; Ernest Webster, Owens College; William Penhall, Ernest K. Campbell, Charles R. Edwards, and William H. Bailey, St. Bartholomew's Hospital; Frederick A. Warner, Robert E. Molesworth, and Walter P. Squire, St. George's Hospital.

Of the 91 candidates examined during last week, 28 failed to satisfy the Board, and were referred for three, and 3 can-

didates for six months' further anatomical and physiological study.

The Library of the College will be closed on Friday, the 24th, and also Saturday, the 25th inst., for the purposes of the Fellowship Examination.

COLLEGE OF PHYSICIANS IN IRELAND. — At the November Examinations the following obtained the Licences in Medicine and Midwifery of the College:—

MEDICINE. — Richard Callan, John Seymour Gelston, James Henry Kisby, Edward L'Estrange Ledwich, Alfred Alex. Donald M'Cabe, William Lane M'Cormack, Joseph F. O'Carroll, Patrick de Basterot Skerrett.

MIDWIFERY. — John Seymour Gelston, James Henry Kisby, Edward L'Estrange Ledwich, Alfred Alex. Donald M'Cabe, William Lane M'Cormack, Joseph F. O'Carroll, Henry Reynolds Peyton, Patrick de Basterot Skerrett, Jeremiah Sugrue.

The undermentioned has been admitted a Member:—

William Masters Rae.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 10th:—

Cortis, Herbert Liddell, Guy's Hospital.
Cowan, Richard Hamilton, London Hospital.
Dunmore, Howard Howse, Victoria-dock-road.
Hingston, Richard, London Hospital.
Richardson, Adolphus Joseph, London Hospital.
Rowell, Robert Henry, Houghton-le-Spring.
Yeatman, John Walter, Roy. Sea-bathing Infirmary, Margate.

The following gentleman also on the same day passed the Primary Professional Examination:—

Edwards, Charles Augustus, London Hospital.

BY command of Her Majesty the Queen, a valuable present of old linen has been presented to St. George's Hospital for the use of the patients.

A FIRE, which naturally caused much alarm, but fortunately did but little damage, broke out in the Nottingham General Hospital on Wednesday night.

MEDICAL MAYORS.—Dr. Phillips has been elected unanimously to the civic chair of Cardigan. On the 9th inst., Mr. Alfred Emsom, J.P., was appointed Mayor, for the second time, for the borough of Dorchester.

A LECTURE on Man in Relation to Geological Time is announced to be delivered at the Working Men's College, Great Ormond-street, by Arthur Nicols, F.G.S., F.R.G.S., on Saturday, November 19th, 1881, at 8.30 P.M. Dr. Spencer Cobbold, F.R.S., will occupy the chair.

THE HUNTERIAN COLLECTION.—At a quarterly meeting of the Trustees of the Museum of the Royal College of Surgeons on the 11th inst. the Right Hon. the Earl of Aberdare was unanimously elected a Trustee, in the vacancy occasioned by the decease of Sir Philip de Malpas Grey Egerton, Bart.

THE CONTAGIOUS DISEASES ACT. — Sir Massey Lopes, presiding recently at a meeting at the Royal Albert Hospital, Plymouth, said his duties when at the Admiralty brought him into possession of certain information as to the working of the Contagious Diseases Act. The measure appeared to have operated most beneficially, and a large proportion of the unfortunates affected by it had been reclaimed.

DUBLIN PATHOLOGICAL SOCIETY.—The following gentlemen have been elected for the ensuing year:—President: W. Stokes. Vice-Presidents: J. T. Banks, S. Gordon, Edward Hamilton, G. H. Kidd, W. Moore, Jolliffe Tufnell. Council: J. K. Barton, A. H. Corley, G. F. Duffey, J. Magee Finny, A. W. Foot, R. J. Harvey, J. Little, T. E. Little, R. McDonnell, C. J. Nixon, J. M. Purser, J. B. Story. Secretary and Treasurer: E. H. Bennett. Secretary for Foreign Correspondence: J. W. Moore.

PRESENTATIONS.—On November 11th an interesting ceremony took place in the large Anatomical Theatre of St. Bartholomew's Hospital Medical School, in connexion with the presentation of a testimonial to Mr. Godart, who has held the post of librarian to the school for twenty-eight years. Having recently retired from this position with the intention, as draughtsman to the hospital, of henceforth entirely devoting himself to the execution of anatomical and pathological drawings, in which department of art he has for many years maintained a high reputation, it was generally felt at the school that some recognition should be given of his past labours. This took the form of a beautifully illuminated address on vellum, accompanied by a purse of money, to which several hundred medical men subscribed, including Sir James Paget and twenty-four other members of the present hospital staff, and a large number of the present students of the school. The presentation was made by Mr. Savory, senior surgeon to the hospital, who spoke very warmly of Mr. Godart's past services, and especially of his artistic talents, and referred particularly to the well-known drawings with which he had enriched their museums. Mr. Godart, in reply, expressed his pleasure at feeling that his past endeavours to serve the school faithfully were appreciated now, and would hereafter cause him to be remembered there.——Last week, on the occasion of the distribution of the certificates, the members of the classes of the Barnsley centre of St. John Ambulance Association presented Surgeon-Major Blackburn with a claret-jug in token of their appreciation of his services in connexion with the Association.——On the retirement of Mr. T. R. C. Downes, M.R.C.S., from the active duties of his profession, his neighbours in Munslow, where he has practised for over forty years, have presented him with a full-length portrait of himself as a mark of their high esteem.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. The London Hospital, the German Hospital, Dalston, St. George's, and the Hospital for Consumption, Victoria-park, become entitled each to £2000 under the will of the late Mr. M. F. BRUXNER. The late Mr. James Lake, of Newlands, bequeathed £1000 to the Kent and Canterbury Hospital. By the will of the late Mr. Horatio Bebb, formerly of Mamhead, Devon, St. Mary's Hospital becomes entitled to £100.

UNIVERSITY COLLEGE HOSPITAL.—A letter has been received from a branch of the "People's Contribution Fund" in aid of this hospital, by the committee of that fund, signed by over three hundred workmen and their employers (Messrs. Brooks and Co., of Lyme-street, Camden Town, Cumberland Market, N.W., and Bartholomew-road, N.W.), tendering "their sincere and heartfelt gratitude to the secretary and resident medical officer for their generous and prompt response to the call in an urgent case of sickness made on behalf of a workman in the firm's employ, who was suddenly stricken down by illness." Further, that they subscribe their names in thanks to those officers who were instrumental in this act of kindness, and asking that three more collecting boxes might be placed in their hands, in order that a voluntary collection in aid of the funds of the hospital could be made at stated periods.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH. At an adjourned meeting of the North-western branch of this Association, held in Manchester last week, Dr. Tatham advocated uniformity in the tabular returns to the various sanitary authorities. He suggested that the Association should petition the President of the Local Government Board to instruct the Medical Department to prepare and issue officially a set of forms such as they could recommend for adoption by medical officers of health acting for urban authorities generally. In compliance with this suggestion a sub-committee was appointed to draw up a petition with this object in view. In a discussion following the reading of a paper by Mr. Vacher, of Birkenhead, on Milk-supply, strong dissatisfaction was expressed at the absence of proper safeguards with regard to the sale of milk, and the want of inspectors to guarantee the fitness of premises for dairy purposes.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BRIGHAM, J. KING., M.B., M.Ch. Q.U.I., has been appointed Medical Officer for the Pinchbeck District of the Spalding Union.

BUCHANAN-HUNTER, C., M.B., C.M., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

DAMANT, ARTHUR J., L.R.C.P.Ed., M.R.C.S., has been appointed Resident Medical Officer to the Eastern Dispensary, Bath, vice Groom, resigned.

DASHWOOD, EDMUND S., M.R.C.S.E., L.S.A.Lond., has been appointed Assistant House-Surgeon to the Sussex County Hospital.

DICKSON, THOMAS A., L.R.C.S., has been reappointed House-Surgeon to the Glasgow Royal Infirmary. Also reappointed Assistant to the Throat Dispensary.

DREAPER, JOHN B., M.R.C.S.E., has been appointed House-Surgeon to the Hulme Dispensary, Manchester, vice Dr. J. Stewart, resigned.

HARDY, HENRY L. P., M.R.C.S., has been appointed Assistant Medical Officer to the Clapham and Wandsworth Infirmary, vice Allan, appointed to the Infirmary at Leeds.

JONES, Mr. HENRY, has been appointed House-Physician to the Glasgow Royal Infirmary.

LIMONT, JAMES, M.A., B.Sc., M.B., C.M., has been appointed House-Physician to the Glasgow Royal Infirmary.

LUGER, JOHN W., L.R.C.P.Lond., M.R.C.S.E., L.S.A.Lond., has been appointed Medical Officer to the Fourth District of the Nottingham Union.

MCLEOD, W. A., M.B., C.M., has been appointed House-Physician to the Glasgow Royal Infirmary.

MAPLETON, G. H., M.B., C.M., has been appointed House-Physician to the Glasgow Royal Infirmary.

MASON, ALFRED H., L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer for the South Ockendon District of the Orsett Union.

MOORE, WALTER, M.R.C.S., L.S.A.Lond., has been appointed a Honorary Surgeon to the Kidderminster Infirmary, vice P. Gabb, resigned.

PENNY, W. J., M.R.C.S., L.R.C.P.Lond., has been appointed House-Surgeon to the Bristol General Hospital, vice Pickering, resigned.

POTTS, JAMES A., M.B., M.R.C.S., has been reappointed House-Surgeon to the Glasgow Royal Infirmary.

ROSS, DONALD, M.B., C.M., has been appointed Surgeon to the South Sea Plantation Company, Samoa, Lovuka, Fiji.

SHELSWELL, OSCAR B., L.R.C.P.Lond., M.R.C.S., has been appointed Resident Assistant Medical Officer to the Islington Infirmary, Upper Holloway, vice J. J. Gordon, resigned.

SMITH, P. A., M.B., C.M., has been appointed House-Physician to the Glasgow Royal Infirmary.

SPENCE, W. JAMES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Medical Officer to the Bradford Infirmary and Dispensary.

THOMSON, J. STITT, L.R.C.P.E., L.R.C.S.E., &c., has been appointed Surgeon to the National Independent Order of Odd Fellows, Dalkeith, N.B., vice W. J. Kennedy, M.D., resigned.

UHTHOFF, J. CALDWELL, M.D.Lond., M.R.C.S., L.S.A.Lond., has been appointed Honorary Surgeon to the Brighton and Hove Lying-in Institution.

WHITE, Mr. H. W., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

YOUNG, Mr. CHARLES S., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

Births, Marriages, and Deaths.

BIRTHS.

HARLEY.—On the 13th inst., at Saffron Walden, Essex, the wife of Edward Harley, Physician, of a daughter.

HAWARD.—On the 13th inst., at Savile-row, Burlington-gardens, the wife of Warrington Haward, F.R.C.S., of a son.

KING.—On the 12th inst., at Ambleside, Westmoreland, the wife of William Moore King, M.R.C.S., of twins (girls).

POTTS.—On the 5th inst., at Leatherhead, the wife of Laurence Potts, M.R.C.S.E. &c., prematurely, of a son, who survived his birth but a few hours.

THOMAS.—On the 20th ult., at Palamcottah, South India, the wife of Surgeon G. T. Thomas, L.R.C.P.Lond., Indian Medical Department, of a daughter.

MARRIAGES.

ATKEY—ANDERSON.—On the 8th inst., at All Saints' Church, Chichester, William T. Atkey, L.R.C.P.Lond. &c., of Chichester, to Mary Catherine, only daughter of J. Anderson, Esq., of Stockbridge, Chichester, and late of Alresford, Hants.

AUSTIN—DAVEY.—On the 8th inst., at St. Mary's Church, Walmer, Cornelby Austin, L.R.C.P.Ed., L.R.C.S.Ed., of Gayton, King's Lynn, Norfolk, to Mary Elizabeth, elder daughter of Richard Staines Davey, M.D., J.P., of Hill House, Walmer, Kent.

BLYTH—FINDLATER.—On the 12th inst., at the Presbyterian Church, Kingstown, John Blyth, M.D., of Fitzwilliam-square, Dublin, to Jane, widow of the late Adam S. Findlater, of The Slopes, Kingstown.

BOMFORD—ETESON.—On the 17th ult., at Christ Church, Simla, by the Rev. Trevor Bomford, M.A., Gerald Bomford, M.D.Lond. &c., Bengal Medical Service, to Mary Florence, only daughter of Lieutenant-Colonel Eteson, Assistant Adjutant-General, Army Head-quarters in India.

KILNER—DAVIS-GOFF.—On the 9th inst., at Horetown Church, Charles Scott Kilner, M.B., youngest son of John Kilner, Esq., F.R.C.S., of Bury St. Edmunds, to Lucy Ussher, youngest daughter of S. Davis-Goff, Esq., J.P., of Horetown House, County Wexford.

THIELE—WILLEMAN.—On the 8th inst., at St. Saviour's, Eastbourne, by the Rev. H. R. Whelpton, Charles Wm. Thiele, M.B., C.M., Army Medical Department, to Marion Peel, only daughter of Charles Willeman, Esq., of Eastbourne.

DEATHS.

BUCKNILL.—On the 12th inst., at Rugby, Samuel Birch Bucknill, M.D., aged 66.

GARDINER.—On the 11th inst., at 13, Hartington-gardens, Edinburgh, Cyril Senior, infant son of Theodore Senior and Lucy Georgina Gardiner, aged 4½ months.

GORE.—On the 14th inst., at Bath, Richard Thomas Gore, F.R.C.S., in his 83rd year.

VARLEY.—On the 13th inst., at Burton-street, Nottingham, John Varley, L.S.A.Lond., aged 67.

WATKINS.—On the 6th ult., at Eccles House, Demerara, Walter Watkins, M.R.C.S.E., aged 45.

N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Nov. 17th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Nov. 11	30·32	W.	55	53	..	59	49	·05	Overcast
,, 12	30·16	W.	55	54	..	61	51	..	Cloudy
,, 13	30·36	N.W.	56	53	..	61	49	..	Bright
,, 14	30·42	N.W.	55	52	..	56	46	..	Overcast
,, 15	30·03	W.	49	46	..	55	45	..	Cloudy
,, 16	30·10	S.W.	51	48	..	56	45	..	Bright
,, 17	29·73	W.	50	47	..	55	47	·14	Cloudy

Medical Diary for the ensuing Week.

Monday, Nov. 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Henry F. Baker, "On a Case of Congenital Displacement of the Head of the Tibia backwards in both Legs, with Double Club-foot."—Dr. Stephen Mackenzie, "On Pityriasis Rubra (four cases) and its Allies."—Dr. Routh, "On the Necessity of Adopting a Different Mode of Burying Bodies the Subject of Infectious Disease."

Tuesday, Nov. 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. E. B. Tylor, "On Notes on the Asiatic Relations of Polynesian Culture."—Rev. R. H. Codrington, "On Notes on the Affinity of the Melanesian, Malay, and Polynesian Languages."—Rev. Lorimer Fison, "On Fijian Riddles."—Dr. J. Beddoe, "On the Stature of the Inhabitants of Hungary."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Spencer Wells, "On a Case of Excision of a Gravid Uterus with Epithelioma of the Cervix, with remarks on the operations of Blundell, Freund, and Porro."—Mr. T. M. Girdlestone (Melbourne), "On the Surgical Uses of Kangaroo Tendons."

Wednesday, Nov. 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

HUNTERIAN SOCIETY.—8 P.M. Dr. Parl, "On some Cases of Hydatid Tumour of the Liver."

Thursday, Nov. 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ABERNETHIAN SOCIETY (St. Bartholomew's Hospital).—Mr. Jessop, "On Genu Valgum."

Friday, Nov. 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. W. H. Gilbart, "On the Structure and Division of the Vegetable Cell."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. Mahomed and Mr. Cripps, "On Two Cases of Direct Transfusion of Blood from Hæmorrhage in Typhoid Fever."—Dr. Whipham, "On Three Cases of Continued Fever with Affection of the Spleen and unusually High Temperatures."—Mr. W. H. Bennett, "On a Case of Talipes Equino-Varus treated by Resection of a Portion of the Tarsus" (the patient will be exhibited).—Mr. J. K. Lunn, "On Two Cases of Myxœdema, male and female" (the patients will be exhibited).

Saturday, Nov. 26.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Local papers containing reports or news-paragraphs should be marked.

We cannot prescribe, or recommend practitioners.

Lectures, original articles, and reports should be written on one side only of the paper.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions on anatomy and physiology submitted to the ninety-one candidates for the diploma of membership of the Royal College of Surgeons at a meeting of the Board of Examiners on the 4th inst., when the candidates were required to answer four, and not more than that number, of the questions out of the six:—

Anatomy.

1. Describe the lower half of the radius.
2. Describe the manner in which the several bones of the pelvis are connected together.
3. Describe the popliteus muscle, its attachments and relations.
4. Describe the dissection necessary to expose the suboccipital triangle and its contents.
5. Describe fully the course of each of the arteries entering into the anastomoses about the scapula. Show how by means of these anastomoses the collateral circulation may be carried on after ligature of the third portion of the subclavian.
6. Describe the intercostal nerves—their origin, course, and distribution.

Physiology.

1. Describe the structure, distribution, and functions of the glands of the skin.
2. What is meant by reflex action? Give examples of it, and, in the examples given, mention the course by which the afferent and efferent impulses are conveyed.
3. Describe the chemical constitution of the neutral fats, their relation to soaps, and their preparation for absorption in the small intestine.
4. Describe the structure of a lymph-gland. What are its functions?
5. Describe the microscopic appearance, the physical and chemical characters, and the uses of tendon.
6. What is urea? Where is it formed? and how can it be quantitatively estimated?

A NEW FORM OF PROFESSIONAL ADVERTISING.

Vigilans directs our attention to the fact that in a famous watering-place a vacancy in the honorary surgeoncy of the hospital has been made the occasion of a flood of newspaper applications, with which have been incorporated all sorts of self-laudation by the candidates. This is not a creditable use of the lay press by professional men, and it is one which we trust will be discontinued.

Mr. Alfred Boon will find the report of the case in THE LANCET for Nov. 5th, p. 783.

Rheumaticus.—Arcachon, San Remo, Ajaccio.

C. T.—Apply to Kimpton, 31, Wardour-street, Soho.

Mr. Symonds.—Soon. A proof will be sent.

H. W.—We believe that physiologists in general are agreed that the occasional marriage of cousins in the same family, providing both sides are healthy and come of a healthy stock, would entail no ill consequences in the offspring that might be produced. If, however, there be marked defects of organisation or strong tendency to hereditary disease on both sides, then such defects or tendencies are likely to be developed or intensified.

EXAMINATION RETURNS.

Scrutator's interesting letter has been seriously considered by us. With his main suggestions we entirely agree. The bare announcement of the number passed at any given examination is no criterion, and throws little light on either the examination or the teaching which preceded it. It has been our constant contention that such large rejections at the examinations imply defective or faulty teaching as well as fault in the pupil. We entirely agree with him, too, in thinking that there is much need of a searching inspection of the various modes of medical education practised in the different medical schools of the country. We do not publish our correspondent's letter because it does not profess to give ascertained data, but only report; and, secondly, because it is directed somewhat pointedly against the professors of a university, who are not, we believe, chargeable with laxness or want of care in their work.

An Old and Present Subscriber.—Mr. Watson Cheyne's prize essay in the library of the Royal College of Surgeons, London; Sir Wm. Mac Cormac's work on "Antiseptic Surgery," published by Smith, Elder, and Co.

Dr. Jagielski.—We regret we shall not have space for more than one article on the subject.

Enquirens should make application to one of the professors of the Army Medical School—Dr. Aitken for example.

A GRIEVANCE.

To the Editor of THE LANCET.

SIR,—Knowing how ready you are to air grievances, I venture to ask if you will, through the columns of THE LANCET, point out to the editor of the Medical Directory the injustice done to graduates in medicine of the University of London by the insertion of such titles as Incep., M.B. Lond., 1st M.B. Lond., Prelim. Sci. M.B. Lond. You have only to turn over the first ten pages of the Directory for 1881 to see instances of this kind. We shall have 1st M.R.C.S. next.—I am, Sir, yours, &c.,

Nov. 15th, 1881. A GRADUATE.

BOGUS PATIENTS.

To the Editor of THE LANCET.

SIR,—I beg to call your readers' attention to the above class, who are infesting, to my own knowledge, Kensington, and probably other parts of the metropolis. One called at 4 P.M. the other day, having read the name on the brass plate, and asked to see the doctor. Fortunately I was in. He wanted to fix an appointment for the same evening at 8 o'clock, to bring a friend round to be treated for a venereal complaint, hoped it was not my dinner-hour, and was sorry to disturb me. I saw him safely out of the house. The would-be patient never turned up, and I am thankful to say, as far as I know, that he stole nothing from my consulting-room or from the passage or umbrella-stand.

Last evening the police sent a man to my house, informing me that two men were making a perfect raid on medical men. The mode of procedure they adopt is the following: Hearing that the medical man is out they ask in a hurried tone whether they can write a note, as it is most important; ushered into the consulting-room, they concoct a bogus letter, and plunder what they can.

I feel certain that you will find space in your valuable journal to ventilate such abominable conduct, if only to put our professional brethren on the alert to catch the rascals.

I am, Sir, yours truly,

Earl's Court-road, W., Nov. 13th, 1881. T. WOOD HILL.

To the Editor of THE LANCET.

SIR,—It will be well for members of our profession who practise in town to be on their guard against the depredations of certain light-fingered gentry who are quietly and successfully carrying on a series of domiciliary visitations, in which, under the pretext of seeking medical advice, they appropriate any articles which they can conveniently carry off. The *modus operandi* of these thieves is as follows:—A gentleman, to all appearances, calls when you are out, a fact of which he is no doubt perfectly aware. He expresses great regret that he has missed you, and says that his business is urgent, and that he must leave a note telling you where to come to see a patient as soon as you return. This note he asks to be allowed to write at once. If your servant is not on his or her guard he is asked into your consulting-room for the purpose, that being probably the most convenient room for writing. This is just what he wants, and accordingly, as soon as he can, especially if the attendant is foolish enough to leave him alone, he pockets any article of your property which he thinks fit, leaves you a note making an appointment (which don't you wish he may keep!), and departs.

This stratagem was tried successfully on me during the summer when I was absent from town, on which occasion the thief was contented with the mild gain of a pair of scissors, and has since been practised with far more effect on two of my friends, one of whom lost his clock and another his laryngoscope and a cheque, which the rascal took straight to the bank and cashed, so that, though the robbery was detected within a very short time after it had been committed, the thief got off safely and secured his plunder. I am, Sir, yours faithfully,

Nov. 12th, 1881. VIGILANS.

"THE LEAST PROTECTED PROFESSION."

S. P. Q. R., as a practitioner in a thickly populated suburb, complains bitterly of the competition of hospitals giving gratuitous advice to well-to-do people. He instances one case of a patient of his paying a rental of £100 making arrangements for the admission of his wife into one of the largest metropolitan hospitals. We would be glad to have full particulars of this case. We entirely agree with him in recommending all persons who have illustrations of the evil of unqualified practice, sheltered by registered practitioners, supplying them to the noble chairman of the Royal Commission, Lord Camperdown. We lament not so much the non-protection of the profession as of the public.

THE ROYAL UNIVERSITY OF IRELAND.

THE regulations concerning the examinations at this university cannot be published till they have received Her Majesty's approval.

Dr. Chippendale will see that we have directed attention to the disgusting fact he describes.

Tipperary.—We cannot give recommendations.

Mr. P. C. Harding.—The College has often maintained the right of its fellows and even of its licentiates to the title in question, but the title properly attaches only to the possessor of a degree.

CARBOLIC ACID IN TREATMENT OF HERPES.

To the Editor of THE LANCET.

SIR,—In THE LANCET, vol. ii., 1878, p. 498, Dr. Thornley describes how he successfully injected each vesicle with the pure acid.

I am, Sir, yours, &c.,

Nov. 14th, 1881. MEDICAL DIGEST.

THE DANGERS OF CATHETERISM.

To the Editor of THE LANCET.

SIR,—In reference to your annotation on the case of Thomas Perry in your issue of the 12th, and upon which you make some pertinent comments, I would make a few remarks and correct one error as to date. I saw the deceased on the Oct. 29th (not 17th), and he was taken to King's College Hospital on the 31st. He was an old man (seventy-four), had taken a severe chill, and was, as he told me, the subject of an old stricture. He was in great pain, with frequent micturition, and all the symptoms of inflammation of the bladder, prostate gland, &c.; no retention. Hence I gave directions as to treatment, but he could not get proper nursing or attention, and in every respect it was a fit hospital case. I was asked for a letter to that effect, and he was taken to King's College on the Oct. 31st. Catheterism was performed, much hæmorrhage ensued, and he was sent home and died on the Wednesday. I sent him with the sole view of his being retained. If required I should have used the catheter without sending him there; and why in this, an evidently urgent case, an extra bed was not put up, is a thing I cannot understand. As to the condition of this poor man, as shown by the post-mortem examination, and the evident cause of death, my opinion is fully corroborated by Dr. Skegg, of Craven-street, who kindly assisted me. I am sorry to see that Mr. Holthouse, the house-surgeon, after admitting at the inquest that it was "risky" sending him home, should write to the *Daily News* and state "there was very little bleeding, and that was due to the condition of parts brought about by previous unsuccessful attempts to relieve him." No unsuccessful attempts had been made prior to his going to the hospital; but this can rest on public grounds entirely.—I am, Sir, your obedient servant,

King William-street, Strand, W.C., C. STUART WATKINS.
Nov. 16th, 1881.

To the Editor of THE LANCET.

SIR,—Allow me to make one or two remarks in connexion with the case which suggested your annotation on the above subject. The hæmorrhage which followed the passage of the catheter was due to the existence of an old false passage, and its quantity was comparatively small, far less than I have seen sometimes produced by more experienced catheterists than myself under similar circumstances. The error in judgment you impute to me in allowing the patient to leave the hospital while bleeding was still going on was not committed, inasmuch as I was particularly careful in seeing that it had ceased. Not to have done so would have been an act of gross negligence, and of any negligence whatever the coroner in his charge to the jury distinctly acquitted me. As to the poor man not being admitted, all I can say is that considering his home was but a short way off, that my beds were all full, that I promised him the first vacant one, that the provision of an extra one is a measure reserved for cases of immediate urgency, and that he was already under the care of a medical man, my sending him away was not the thoughtless act it has been represented to be. At the same time I must thank you for what is, with the above exception, a fairer statement of the case than has appeared elsewhere.

I am, Sir, yours faithfully,

EDWIN HOLTHOUSE, House-Surgeon.

King's College Hospital, Nov. 10th, 1881.

KILMARNOCK FEVER HOSPITAL AND INFIRMARY.

WITH considerable surprise we learn that candidates for the office of "consulting physician and surgeon" to the hospital are canvassing the subscribers. We do not understand the nature of the appointment unless it be that of an honorary officer, in which case it would seem natural that some retiring member of the working staff should be appointed, and canvassing the subscribers is an irregular proceeding.

Querist should consult a qualified medical man.

Mr. G. A. Wright.—In an early number.

Mr. Dickson (Atlanta).—We cannot exchange.

Dr. Lock.—Pitman's system is the most approved; the "Teacher" and "Manual" are sufficient for its preliminary study.

ECZEMA OF THE SCALP.

To the Editor of THE LANCET.

SIR,—I am treating some cases of eczema of the scalp, which have arrived at the stage of dryness with an abundance of scurf. All my remedies fail to effect a cure. I shall be much obliged to any of your readers who will suggest a remedy for this condition.

Believe me, Sir, yours, &c.,

Nov. 16th, 1881. M.D.

MEDICAL OFFICERS OF HEALTH AND MEDICAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—In reference to a letter in your last issue signed Alex. Fergusson, M.D., we have to make the following statements:—1st. It was at Dr. Fergusson's instance that the case was handed over to the local authority. 2nd. The sanitary medical officer declined to attend until specially requested to do so by us, and informed that Dr. Fergusson had ceased attending.—We are, Sir, your obedient servants,

WM. BUCHAN, Clerk to Local Authority.
JAMES HOME, Inspector of Poor.

Peebles, Nov. 15th, 1881.

Mr. Lawrence Gill.—Nearly every Italian surgeon is a proficient in the art of embalming. Dr. MAZZONI, of 89, Via Mario de Fiori, Professor of Surgery in the Roman University, has a process of his own which is very perfect, and his name may be mentioned as the best instructor in the art.

Dr. Meisner.—It would be contrary to our rule to insert the notice.

LICHEN CIRCINATUS (TINEA VERSICOLOR).

To the Editor of THE LANCET.

SIR,—Since the time, now more than eight years back, when my attention was first directed by Dr. Dyce Duckworth in the skin department of St. Bartholomew's Hospital to the probable connexion between tinea versicolor and so-called lichen circinatus (vel circumscriptus), I have used every opportunity afforded me of seeking evidence in support of this view. As has been well pointed out by Dr. Crocker, the history and clinical features of the disease provide us with all those characters peculiar to parasitic affections, short of the readiness to yield fungus upon microscopical examination. After adopting all the care in the preparation of the specimens, as recommended by him, including prolonged maceration in liquor potassæ, which, in my experience, is so very requisite, I am obliged to admit that in one or two cases only have I seen anything approaching definite fungus structure, and that to an extent apparently out of all proportion to the cutaneous development. Dr. Duckworth, in THE LANCET of Nov. 5th, reminds us how that constitutional peculiarities explain different local manifestations. It is well also that we should remember the modifying effects of local influences. With this object I desire to draw attention to the almost constant frequency with which patients suffering from this disease practise the habit of wearing the same flannel or under-vest without removal night and day for weeks together, and often during the summer as well as winter months (possibly suggested by a rheumatic tendency), additional irritation &c. thus considerably inflaming the part, and so tending, I imagine, in no small degree to destroy the alleged parasite. From the same cause the fungus is probably modified in appearance, for Dr. Crocker's illustration in THE LANCET of Oct. 29th bears no resemblance to the peculiar corymbous arrangement of spores, &c., so easily demonstrable in all ordinary cases of tinea versicolor. It seems, however, exceptionally strange that if the vegetable fungus—the microsporon furfurans—is responsible for the production of lichen circinatus its existence should be so rarely proved even by those constantly engaged in the treatment of skin diseases both in private and hospital practice. It would be interesting to know (for it is the entire truth we all desire) in what percentage of all his cases Dr. Crocker himself has successfully demonstrated fungus. Any way, we are indebted to him for bringing this subject forward for consideration.

I remain, Sir, your obedient servant,

Finsbury-circus, E.C., Nov. 10th, 1881. J. HERBERT STOWERS.

DR. RUSSELL REYNOLDS'S ADDRESS ON SPECIALISM IN MEDICINE.

To the Editor of THE LANCET.

SIR,—I read Dr. Russell Reynolds's address with some pleasure, and it failed to stir up that indignation in me that it appears to have excited in some quarters, because I considered that his remarks applied not to the legitimate practice of a speciality, but to certain nefarious proceedings which I trust are rarer than he seemed to imply, but to which any special line of practice offers some facilities.

When, however, a paper which professes to be the leading medical journal of the day says in an editorial article that "it is not in the interests of science or the highest probity in practice that specialists should be encouraged by the profession," some explanation is needed. This must mean either that "specialism" is unnecessary, or that, if necessary, its encouragement should be left to the public. Now, against both these propositions I most vehemently protest.

It is most desirable that every man on going into practice should have some knowledge of every branch of his profession, and should be able to use with facility every special instrument of diagnosis; but it is in the nature of things impossible that any man should be long in practice without coming across cases in which neither his reading nor his experience help him, and concerning which he is glad to have the opinion of a surgeon or physician whose daily experience is among cases of the same class. How many, again, of the practitioners who qualified, say, ten years ago, would feel themselves competent to extract a cataract, perform an iridectomy, or to estimate the refraction in a case of astigmatism? How many, as a matter of fact, do fail even to recognise a case of acute glaucoma until too late?

To make a specialty of one affection which requires to be treated on ordinary surgery principles—e. g., fistula,—or of one which of necessity produces general symptoms, such as heart disease, is a practice which should never be encouraged by the profession. Specialism within legitimate bounds is, however, sometimes absolutely necessary, but if the public are left to encourage it, the road is open to quackery and imposture of all kinds.

If a man is devoid of moral rectitude he will abuse his opportunities in whatever branch of the profession he chooses to practise, and a specialty gives him more opportunities, because of the comparative ignorance of the public and general practitioners; but to state, as is done in your leading article, that an impecunious man can hardly fail to adopt such practices is certainly untrue, and I think impolitic.

For the medical profession to ignore specialism is, I take it, the way to encourage charlatans and humbugs. The safest precautions against the believer of specialism lie, I believe, in every man commencing practice with a fair knowledge of every branch of the profession, and when possible meeting specialists in consultation. If this were done the disgraceful practices referred to by Dr. Russell Reynolds would be well nigh impossible.—I remain, Sir, yours truly,

Wimpole-street, W. W. ADAMS FROST, F.R.C.S.

*** Our correspondent must have read our leader very hastily if he supposes we did not recognise the need of certain specialties. If he will read it again he will find we condemned the abuse, not the legitimate use, of specialism in practice. We have nothing to withdraw or qualify.—ED. L.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Pacchiotti, Turin; Dr. Russell Reynolds; Mr. Newnham, London; Dr. Alford, Taunton; Mr. Lewis Lewis; Mr. Stanley Smith, London; Dr. Gregory, Bolton; Mr. Sproston; Mr. Dalzell; Mr. Holthouse, London; Mr. Hine, Oxford; Mr. Kelly, Erdington; Mr. J. E. Adams, London; Dr. Ward Cousins, Portsmouth; Dr. Hilton Fagge, London; Dr. Norman Kerr, London; Mr. Evans, Northampton; Mr. Reginald Harrison, Liverpool; Dr. Wilks, London; Mr. T. Laffan, Cashel; Mr. E. Nock, London; Mr. T. W. Hill, London; Dr. Mulvany, Portsmouth; Mr. Sweeting, King's Lynn; Mr. Douglas, Newbury; Dr. Church, London; Mr. Rudkin, Teignmouth; Mr. H. Taylor, Guildford; Mr. French; Dr. Bond, Cambridge; Mr. Fry, Shipley; Dr. Scriven, London; Mr. Dickson, Atlanta; Mr. Leypoldt, New York; Dr. Agnew, Philadelphia; Dr. Stephen Smith, New York; Mr. Percy Boulton, London; Mr. May, Reading; Mr. Simeon Snell, Sheffield; Mr. Stanley Herbert, London; Mr. Josiah Child, London; Mr. Yates, London; Mr. Gisborne, Derby; Dr. Bartolomé, Sheffield; Dr. Henry Thompson, London; Messrs. Street and Co., London; Mr. Reynolds, Steeple Bumpstead; Dr. G. E. Paget, Cambridge; Dr. W. Tonge Smith, London; Mr. Howard, Stockwell; Mr. R. Forrester, Preston; Mr. Bernard Roth, Brighton; Mr. Symonds, London; Mr. Braxton Hicks; Dr. Rogers, London; Dr. Squire; Dr. E. H. Jacob, Leeds; Dr. Mackellar, Glasgow; Messrs. Ivens and Gregson; Dr. Henderson, London; Dr. Tyacke, Chichester; Mr. Ball, Macclesfield; Mr. Shirley Murphy, London; Mr. Webster, Ramsgate; Dr. Borchardt, Manchester; Mr. Eddowes, Stamford; Mr. F. R. Fisher, London; Mr. Johnstone, Ramsgate; Mr. F. Iliffe, Derby; Mr. W. Iliffe, Derby; Mr. Jepson, Hampton; Mr. Batt, Abergavenny; Mr. Giffard, Surrey; Mr. Bree, Colchester; Mr. Tegart, London; Mr. G. Eastes, London; Dr. Broadbent, London; Professor Marshall, Manchester; Mr. Udall; Mr. T. W. Marshall; Mr. Patchett; Mr. Hancox, Bilston; Mr. Mayo, Great Yarmouth; Mr. French, Wells; Dr. Eastes, Folkestone; Mr. Harper, Barnstaple; Mr. Teal, Halifax; Mr. Allsop; Mr. Davies, Maidstone; Mr. Moore, Stourbridge; Mrs. Allsop, Manchester; Mr. Payne, Bath; Mr. W. W. Marshall, London; Messrs. Wood and Co., New York; Mr. Jesse; Mr. Clutton, London; Mr. Thompson, London; Mr. R. B. Carter, London; Mr. Lavitt, Nice; Mr. Reeve, Truro; Dr. T. Williams, London; Dr. C. Black, Glasgow; Dr. Dowse, London; Mr. Freeman, London; Dr. Bristowe, London; Mr. Haydon, Tiverton; Mr. Fairbank, Wells; An Old and Present Subscriber; Oculus; J. B. R.; T. F. M., Walton; F. H., Reading; J. A. X.; One who is not a Vegetarian; X. Y. Z.; Scrutator; M.D.; Nemo; X. B.; Hic et Ubique; 667; A Graduate; H. W. G.; Fresh Air; W. B. F.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Davies, Pontypridd; Mr. Belcham, Rayleigh; Mr. Watt, London; Mr. Paine, Worthing; Messrs. Needham and Co., Manchester; Messrs. Marshall and Co., Manchester; Mrs. Day, Sheffield; Messrs. Hatchman and Co., London; Mr. Bealson, Glasgow; Mr. Fawcett, Oldham; Mr. Fenfield, Chipping Sodbury; Mr. Nicoll, Arisaig; Messrs. Lee and Nightingale, London; Mr. Tooke; Mrs. Bakewell, Shrewsbury; Mr. Birks, Sheffield; Dr. Irwin, Manchester; Mr. Mackenzie, London; Mr. Beman, Newton-le-Willows; Mr. Hunt, Hull; Mr. Codlin, Ancaster; Mr. Worsley, Ryde; Mr. Horn, Darlington; Dr. Crewse, Truro; Mr. Slack, Newcastle-on-Tyne; Mr. Lawson; Mr. Griffin, Reading; Mr. Dixon, Leeds; Mr. Hall, Swadlincote; Miss Corrie, Newbury; Mrs. Chapham, Clapham; Mrs. Mander, Tettenhall; Mr. Thompson, London; Mr. Edall, Burton-on-Trent; Mr. Henson, Manchester; Dr. Black; Mr. Robinson, Sheffield; Messrs. Cornish and Co., Manchester; Mr. Gordier, Reading; Dr. Butters; Mr. Julien, St. Colomb; Mr. Creswell, Louth; Mr. Neate, London; Mr. Mason, Holloway; Dr. Stevenson, Kettering; Mr. Best, Walthamstow; T. X.; Zymosis; X. Y. Z.; R. S.; Secretary Faculty of Physicians and Surgeons, Glasgow; Beno; E., Widnes; B. B.; C. W., Budely; D. R. F., London; O. M.; Physician, Leeds; R. S. T.; G. S. B. B., Edinburgh; J. L., Arundel; Principal, Seaforth; Montague; M. M.; Mater; H. F.; C. K.; A. M., Westminster; Medicus, Leeds; Ergo; Beta, Manchester; The Secretary, Wolverhampton Hospital; The Secretary, Bath United Hospital; P., Eastbourne; &c., &c.

Newcastle Daily Chronicle, Railway Journal, Food and Health, Irish Times, Southern Weekly News, Shrewsbury Chronicle, Times of India, Barnsley Chronicle, Western Morning News, Christian Commonwealth, Railway Journal, Nottingham Journal, Temperance Record, Nottingham and Midland Counties Daily Express, Gazzetta Medica Italiana, Southend Observer, Times of Natal, &c., have been received.

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